DOCUMENT RESUME

ED 126 803	HE 008 068
TITLE	Proceedings; National Conference Area Health Education Centers Program. The Decentralization and Regionalization of Health Professional Education and Training.
INSTITUTION	Public Health Service (DHEW), Washington, D.C. Bureau of Health Manpower.
REPORT NO	DHEW-HRA-76-38
PUB DATE	75
NOTE	131p.; Proceedings of the National Conference the Area Health Education Centers Program (Asheville, North Carolina, April 25-27, 1975)
EDRS PRICE	MF-$0.83 HC-$7.35 Plus Postage.
DESCRIPTORS	*Decentralization; Governance; Health Facilities; Health Occupations Centers; *Health Occupations Education; Health Personnel; *Health Programs; Higher Education; *Professional Education; Program Development; *Regional Cooperation
IDENTIFIERS	*Area Health Education Centers

ABSTRACT

The Area Health Education Centers Program (AHEC) Conference, sponsored by 11 universities holding federal contracts for the support of AHEC, considered issues relating to decentralized and regionalized health professional education. The participants discussed regionalization and educational program development; interdisciplinary program development; AHEC governance; the relationship of AHEC and regional education to health services institutions; and some future perspectives of AHEC. (JMF)

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National Conference Area Health Education Centers Program

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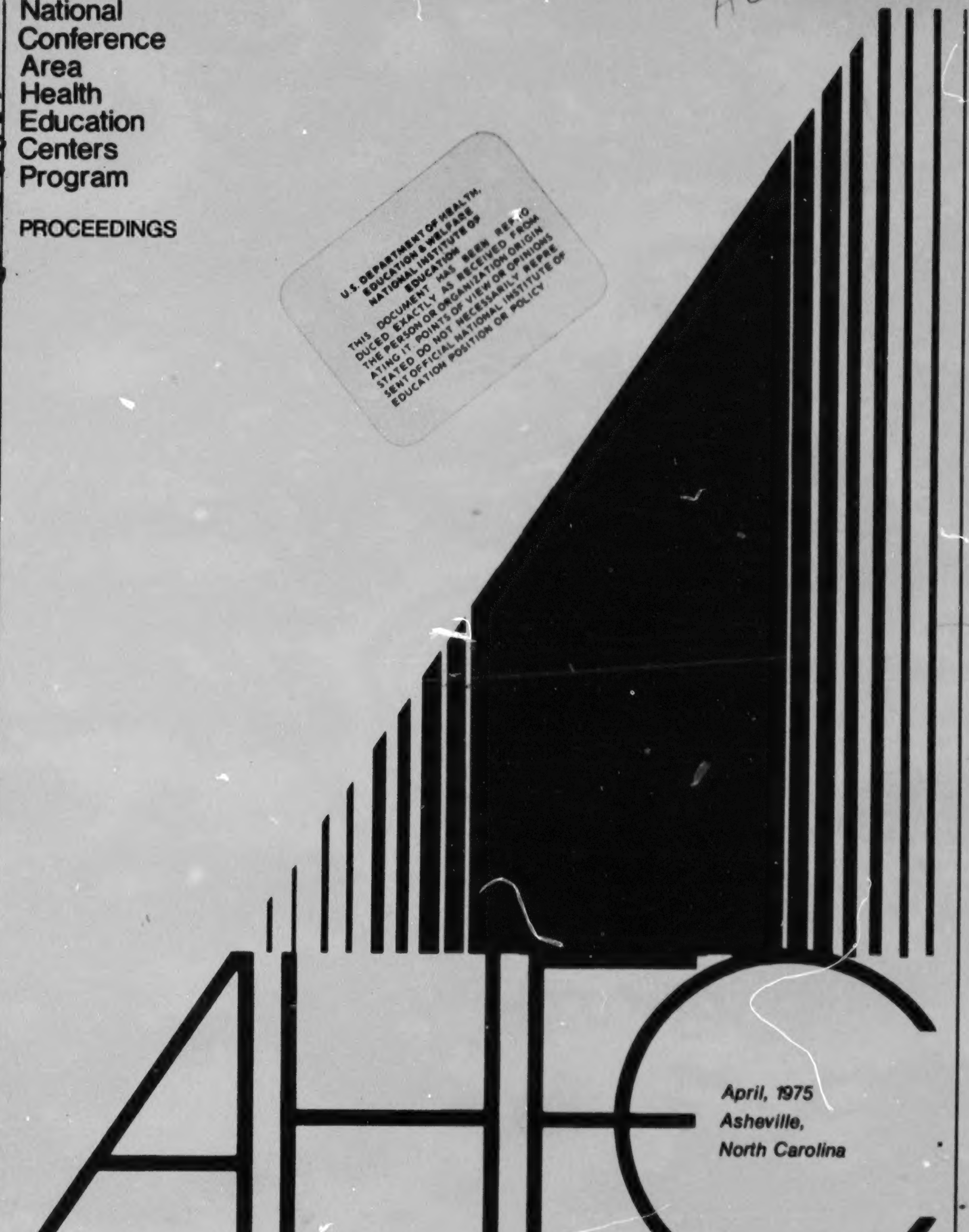

April, 1975
Asheville,
North Carolina

HE 008068

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE ☐ Public Health Service ☐ Health Resources Administration

The eleven project directors of the universities sponsoring this national AHEC Conference wish to express their thanks to the following individuals from the North Carolina AHEC Staff.

Mrs. Jill Camnitz, Staff Coordinator
Mr. Bill Lail
Mr. Clark Luikart
Mrs. Sally Powell

Proceedings
Of The
National Conference

The Area
Health Education
Centers Program

AHEC

THE DECENTRALIZATION AND REGIONALIZATION OF HEALTH PROFESSIONAL EDUCATION AND TRAINING

April 25-27, 1975
The Grove Park Inn
Asheville, North Carolina

Sponsored by

The University of California, San Francisco
The University of Illinois
The University of Minnesota
The University of Missouri
The University of New Mexico
The University of North Carolina at Chapel Hill
The University of North Dakota
The Medical University of South Carolina
The University of Texas Medical Branch at Galveston
Tufts University
West Virginia University

DHEW Publication No. (HRA)76-38

The AHEC Program is supported in part by the Bureau of Health Manpower,
Department of Health, Education, and Welfare.

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Eugene S. Mayer, M.D.
Deputy Director, North Carolina AHEC
Conference Coordinator

These proceedings describe a national meeting held in Asheville, North Carolina on April 25-27, 1975, to discuss the Area Health Education Centers Program (AHEC). The meeting was jointly sponsored by the eleven universities holding Federal contracts for the support of AHEC through the Bureau of Health Resources Development (now the Bureau of Health Manpower) of the U.S. Department of Health, Education, and Welfare.

This meeting built upon two previous national meetings sponsored by the Federal Government for discussion of administrative and budgetary items connected with the program. These meetings, held in St. Louis (May, 1973) and Dallas (February, 1974), were attended by the AHEC project directors and their immediate administrative staffs to the general exclusion of faculty and staff actually conducting educational programs in AHEC settings.

For this reason the project directors arranged the meeting described in these proceedings to consider issues relating to decentralized and regionalized health professional education. The majority of the participants were faculty and staff from AHEC settings in various parts of the country who, it was believed, could benefit from sharing program experiences and problems with each other.

The eleven sponsoring universities were:

- Tufts University
- West Virginia University
- The University of North Carolina, Chapel Hill
- The Medical University of South Carolina
- The University of Illinois
- The University of Minnesota
- The University of Texas Medical Branch at Galveston
- The University of New Mexico
- The University of Missouri
- The University of North Dakota
- The University of California, San Francisco

AGENDA

National Conference
The Area Health Education Centers Program

April 25-27, 1975
The Grove Park Inn
Asheville, North Carolina

THURSDAY, APRIL 24	
6:00-9:00 PM	**Social Hour: The Green Room**
FRIDAY, APRIL 25	
9:00-10:15 AM	**Welcoming Remarks** Dr. Henry S.M. Uhl Director, Mountain AHEC (N.C.) Dr. Christopher C. Fordham, III Dean, University of North Carolina School of Medicine Keynote Address: Decentralized Health Professional Education from the Carnegie Perspective Mr. William C. Friday President, University of North Carolina Dr. Margaret Gordon Associate Director, Carnegie Council on Policy Studies in Higher Education
10:15-10:30 AM	**Coffee Break**
10:30-Noon	**Panel Discussion: Regionalization and Educational Program Development** Dr. William Wiese, Moderator Project Director, New Mexico AHEC Mr. Don Arnwine President, Charleston (W.Va.) Area Medical Center "Medical Education: Undergraduate and Graduate" Dr. C. Glenn Pickard Medical Coordinator, Family Nurse Practitioner Program University of North Carolina School of Medicine "Mid-Level Practitioner Development" Dr. Douglas Fenderson Director, Office of Continuing Medical Education, University of Minnesota "Continuing Education"
2:30-4:30 PM	**Panel Discussion: Interdisciplinary Program Development** Dr. Edith Leyasmeyer, Moderator Project Director, Minnesota AHEC

Ms. Bernadine M. Feldman
AHEC Nursing Liaison, University of Minnesota
"Curriculum Articulation in Nursing"

Dr. Rodger C. Kollmorgen
Department of Psychiatry, University of Minnesota
"Interdisciplinary Education and the Health Care Team Concept"

Dr. Richard J. Schimmel
Associate Dean, School of Associate Medical Sciences,
University of Illinois
"Innovations in Basic Sciences Curriculum"

Dr. Richardson K. Noback
Dean, University of Missouri at Kansas City
Medical School
"Innovations in Medical Education"

8:00-9:30 PM **Roundtable Discussions**

Allied Health: The Cherokee Room
Dr. Manfred J. Meier
Coordinator, Allied Health Professions
University of Minnesota

Nursing: The Mountaineer Room
Mrs. Carol M. Eady
Coordinator, Nursing Education
Illinois Area Health Education System

Pharmacy: The Grotto Room
Dr. Robert A. Sandmann
Assistant Dean, School of Pharmacy
University of Missouri at Kansas City

Dentistry: The Pine Room
Dr. Alfred C. Waldrep
Coordinator, Dental Programs
South Carolina AHEC

Public Health: The Cherokee Room
Dr. Charles Harper
Director, Division of Community Health Service
University of North Carolina School of Public Health

Medicine: The Ballroom
Dr. Edward P. Donatelle
Chairman, Department of Family Medicine
University of North Dakota School of Medicine

Evaluation: The Forest Room
Ms. Bernadine M. Feldman
Evaluation Consultant
Minnesota AHEC

SATURDAY, APRIL 26

9:30 AM-12:30 PM **Panel Discussion: AHEC Governance**

Mr. Glenn Wilson, Moderator
Program Director. North Carolina AHEC

Dr. Cecil G. Sheps
Vice Chancellor for Health Sciences,
University of North Carolina at Chapel Hill

Dr. Charles E. Andrews
Provost for Health Services
West Virginia University
Project Director, West Virginia AHEC

Mr. Dewey Lovelace
Director, Wilmington (N.C.) AHEC

Mr. Gary Dunn
Project Director, North Dakota AHEC

2:30-4:30 PM **Panel Discussion: The AHEC and Regional Educational and Health Services Institutions**

Dr. T. F. Zimmerman, Moderator
Project Director, Illinois AHEC

Dr. Bryant Galusha
Director, Charlotte (N.C.) AHEC

Dr. James McGill
Associate Director, Health Affairs
State of Illinois Board of Higher Education

Dr. Karl J. Jacobs
President, Rock Valley College, Rockford, Illinois

6:30 PM **Carolina Pig Pickin': Campground of the Grove Park Inn**

SUNDAY, APRIL 27

9:30-11:30 AM **Panel Discussion: The Future of AHEC: Some Perspectives**

Dr. Hartwell Thompson, Moderator
Deputy Director, West Virginia AHEC

Dr. Margaret Gordon
Associate Director, Carnegie Council on
Policy Studies in Higher Education

Dr. David Kindig
Deputy Director, Bureau of Health Resources Development

Dr. August Swanson
Director, Department of Academic Affairs
Association of American Medical Colleges

Dr. Brian Biles
Professional Staff Member
Health Subcommittee, U.S. Senate

Mr. Stephan E. Lawton
Counsel, Subcommittee on Health and the Environment
U.S. House of Representatives

Mr. Daniel R. Smith
National AHEC Coordinator
Bureau of Health Resources Development

11:30-Noon **Summarization of Conference**

Dr. Eugene S. Mayer
Deputy Director, North Carolina AHEC

The AHEC Program: A Brief Description*

The specific purposes and functions of the Area Health Education Centers Program (AHEC) and the method by which contracts for their establishment were awarded are explained at some length in the publication, "Area Health Education Centers", DHEW Publication No. (HRA)74-7. Briefly the AHEC Program is a system which links health service organizations and educational institutions in community settings to an academic health science center in order to meet regional and local health manpower needs through decentralized and regionalized educational programs.

Eleven medical schools or academic health science centers, under contract with the U.S. Department of Health, Education, and Welfare through the Bureau of Health Manpower have joined through subcontract with one or more community hospitals some distance away to provide education and training in areas which are in need of health personnel. These regional community hospitals (the AHECs) in turn form affiliations with other hospitals, health service agencies, and educational institutions throughout a defined geographic area to conduct the needed health manpower development programs.

The major purposes of the AHEC program are to:

1. Increase health manpower in areas where it is in short supply and aid in developing an equitable distribution of health manpower;
2. Improve the balance between primary care and specialty-oriented health manpower;
3. Decentralize medical education both to make it more widely available geographically and make use of existing clinical facilities;
4. Establish linkages among existing health educational and clinical institutions and related institutions providing education and training in the health field;
5. Involve health science centers in the development of integrated educational programs which include a variety of departments;
6. As a by-product of the educational programs which the AHECs develop, improve health services in the scarcity areas.

The AHECs funded under this program are adaptations of the recommendations in the October, 1970 report of the Carnegie Commission entitled "Higher Education and the Nation's Health: Policies for Medical and Dental Education." The original legislative authorization for this program is in Section 774a of the 1971 Comprehensive Health Manpower Training Act.

It should be pointed out that other adaptations of the Carnegie model are being attempted under other names and by various agencies and programs including the Veterans Administration, the Regional Medical Program, and some State programs. Although there are points of interface between these various programs and the AHEC program, only the activities of the AHEC Program funded in part by the Bureau of Health Manpower are the subject of these proceedings.

*This description of the AHEC Program is abstracted from the introduction to the proceedings of the first National Conference on AHECs held in St. Louis May 17-18, 1973. This earlier introduction was written by Mr. Daniel Smith, now National Coordinator, Area Health Education Centers Program, of the Bureau of Health Manpower of the Department of Health, Education, and Welfare.

Conference Summary

Dr. Eugene S. Mayer
Deputy Director, North Carolina AHEC
Conference Coordinator

A summarization of this 2½ day Conference could never do justice to the invaluable contributions made by each of the speakers, by the audience, by the roundtable participants, and by those conducting "corridor conversations." However, several themes were apparent to me throughout the formal presentations which I believe can be considered under three general headings, namely:

1. A reaffirmation of the goals and principles of the AHEC Program.
2. An updated review of some of AHEC's accomplishments and associated problems.
3. A consideration of some fundamental issues which require continuing attention if the AHEC Program is to reach its goals and continue to receive public support.

The Goals and Principles of the AHEC Program

We owe special thanks to Dr. Gordon who effectively set the stage for the Conference by reminding us that the AHEC concept is an outgrowth of the October, 1970, report of the Carnegie Commission entitled, "Higher Education and the Nation's Health: Policies for Medical and Dental Education," which subsequently found legislative expression in the Comprehensive Health Manpower Training Act of 1971. From her comments and those of several of the speakers who referred both to the original Request for Proposals from the National Institutes of Health, which led to the 11 Federal AHEC contracts, and to the goals agreed to by the eleven projects in earlier national meetings, there are at least three broad goal categories for AHEC.

A. Broad Social Goals

1. To increase the supply and to improve the geographic distribution of health personnel of all types through the educational process and through a general improvement of a region's professional environment.
2. To improve the imbalance between generalists and specialists in the health care system by focusing on the training of primary care manpower.
3. To create an educational *system* which maximizes the use of existing clinical facilities and existing educational institutions in a geographic region so as to avoid the socially nonproductive proliferation of more university health science centers (UHSC) than are really needed.

B. Institutional Goals

1. To develop effective partnerships between UHSCs and community hospitals (AHECs) which offer real potential for institutionalization upon cessation of federal funding.
2. To examine the hypothesis that such partnerships can maximize the impact of the educational process on the broad social goals of the program.
3. To test this hypothesis in a manner which compromises neither the quality of the educational programs of the university or the patient care services of community institutions.

C. Educational Goals

1. To use the newly established multi-institutional educational system as an exciting new classroom and laboratory for health science students from both the UHSC and from regional educational institutions.
2. To provide students from the UHSC not only with innovative educational programs in a community setting but also with exposure to the community itself so as to increase the likelihood that the student will choose a career of practice in a community setting.

In attempting to link the educational process to the community's needs for health manpower, the first four panels served to remind us of the principles underlying the AHEC approach suggested by the

Carnegie Commission. The principles which can be identified from these panels are:

1. The AHEC Program is a program of health manpower education and training. It is, per se, not a program of health services organization and delivery, community health planning, or health care quality assurance, although it has appropriate links to such programs.
2. Although its overriding social concern is to improve the geographic and specialty distribution of health manpower, the AHEC Program will not, *by itself*, solve all distributin problems. However, AHEC is better viewed as a critical piece of the national solution as it represents a program which assures that established health educational and health service institutions will assume their appropriate responsibility for contributing to the national solution. We are indebted to Dr. Biles for this opportunity to reaffirm our relationship to the various approaches needed to effect a national solution.
3. The key factor linking the educational process to the geographic distribution of health manpower, is the impact of the educational process on the professional environment of a community. This impact relies upon several operating principles which are fundamental to AHEC.
   - *Decentralized educational programs:* Panel #1 indicated that the education and training programs of the UHSC must reach community settings if we are to improve the climate for professional practice and decrease professional isolation. This panel indicated that AHEC offers the potential for providing significant educational opportunities for UHSC students, including new health roles such as the nurse practitioner, in community settings and also indicated how community practitioners have their own continuing education enhanced not only by organized programs of continuing education but through their functioning as teachers. Finally, the panel indicated that decentralization implies a new partnership between the UHSC and the regional center (AHEC) which recognizes that considerable autonomy in defining and implementing educational programs rests with the regional center. Panel #3 made further references to the issue of autonomy and governance which I will consider again later.
   - ***Regionalized Educational Programs***: Panel #1 also indicated that an essential operating principle of the AHEC Program is the development of a network of relationships which link the UHSC to a *limited* number of regional centers (AHECs) which, in turn, assume direct responsibilities for education and training programs that reach into surrounding communities in their defined service areas. These arrangements not only present the UHSC with a manageable number of community affiliations but also increase the likelihood that local health manpower needs will be met through a nearby regional center.
   - *Multidisciplinary and Interdisciplinary Approach*: If AHEC is to improve the regional environment for professional practice, it must assist in the development and maintenance of well qualified health manpower of all types. Panel #2 clearly demonstrated that the AHEC Program offers the opportunity for health manpower education and training for a variety of health professional and nonprofessional roles. It also indicated that the AHEC might offer a more favorable environment for interdisciplinary education than has the traditional UHSC.
   - *The Continuum of Education:* It seems clear that if the professional environment of a region helps to influence the distribution of health manpower, then educational programs through the AHEC must not be limited to university students. Panels #1 and #2 demonstrated quite well that the national AHEC Program spans the continuum of education, including undergraduate health professional and allied health education, graduate training such as for interns and residents, and continuing education for all forms of health manpower. We even heard that AHEC has reached back into the secondary schools to improve health careers counseling.
4. The key factor linking the educational process to the specialty distribution of health manpower is a redirection of our educational process to include a greater emphasis on education and training programs oriented to primary care. All four panels demonstrated that the AHEC Program has allowed for a dramatic increase in the primary care training of physicians and panel #1 further reminded us of the potential for training nurse practitioners and physicians' associates in regional and community settings through AHEC.

5. Although each of the four preceding principles are timely and consistent with helping to meet the health care needs of underserved communities through the educational process, they require firm commitments of long duration by the university and the regional centers if they are to influence the supply and distribution of health manpower over time. Panels #3 and #4 indicated that such commitments require the full support of faculty and staff at both institutional levels which means the development of an organizational structure which provides these institutions with some measure of control over program development, especially if they are to make long term commitments to faculty and staff and to seek funding from State governments and other sources. The organizational arrangements outlined as essential to the AHEC Program's success by panels #3 and #4 are as follows:

   - That the primary responsibility lies with the UHSC. It was pointed out that programatic responsiveness to local needs and accountability for this performance are based in Federal requirements for quantified performance statements outlining performance expectations over a five year period of time. In North Carolina this same approach is now being followed with State funds which have been allocated to the AHEC Program.
   - That the regional responsibility lies with the regional community hospital (the AHEC), or with a consortium of several community hospitals which already control most of the clinical resources of the community needed for health manpower education and training.
   - That the AHEC assures its regional focus by working with a multi-disciplinary, multi-institutional advisory committee drawn from its geographic service area. Operationally it conducts regional programs and utlizes additional clinical and educational resources through subcontractual relationships with smaller community hospitals, other health agencies, and local educational institutions. .
   - That the total program represents a partnership between the various health disciplines, although it is under a single program director at the UHSC which insures a coordinated approach to the development of education and training programs for a variety of health manpower.
   - That through these organizational principles the total AHEC program is well grounded in established institutions which can be held accountable over time. This, in turn, increases the likelihood that Federal funds will catalyze more secure funding of the program through other sources as State government. Panel #3 indicated that even at this early point in the life of the AHEC program the General Assembly of one state (North Carolina) has made a major investment in the long term security of a statewide network of AHECs linked to the UHSC.

6. The final principle of the AHEC Program that received attention throughout the various panel discussions is that the program does not exist in a vacuum and has not been imposed upon a static situation. Rather, it sits in an environmental context which contains powerful socio-economic forces as well as historical trends in health professional education and health care delivery. Although AHEC will influence this environment, it is more likely to be influenced by it. As such, although a critical piece to the solution of the problem of health manpower supply and distribution, AHEC, *as with any other single approach*, is not the total solution to the problem of access to health care services.

Program Performance and Problems in the AHEC Program

The remainder of my remarks will be relatively brief. I have dwelled on the goals and principles of the AHEC Program because, while they were well covered in the presentations, they are the most difficult to arrange in an orderly manner. In addition, in his panel presentation, Dr. Noback wisely challenged us to consider the generic issues developed in this Conference. I hope I have done some justice to his request.

Each of the panels and the various roundtable discussions are replete with examples of the programmatic accomplishments of the various AHEC projects. Since I could not begin to summarize these accomplishments and their associated problems, I commend you to the written summaries of each of the panels and roundtable discussions. I would like to point out, however, that one cannot help but be struck by the fact that the AHEC Program is not only a physician oriented program. The accomplishments of dentistry, nursing, pharmacy, public health, and a variety of allied health fields is a testimony to the wisdom of the Carnegie

Commission and the federal government in choosing the AHEC approach as one method for improving the total professional environment of a community.

Future Considerations

Throughout the Conference I was reminded of four issues requiring constant attention if the AHEC Program is to reach its goals and continue to be looked upon with favor by the public. These reminders were especially clear in the concluding panel, and we are deeply indebted to our special guests on panel #5 who took time away from their busy schedules to lend their thoughts and observations to those of us working in the AHEC Program.

The first reminder is that there is the need to assure a partnership relationship at several levels. This begins with Federal and/or State government and the university. The UHSC must not only commit itself to a long term effort, but government must likewise commit itself to a program which has a constancy of goals and objectives and the security of funding based upon program performance. Such constancy and commitment are critical if educational institutions are to attract the faculty and staff needed to carry out the AHEC Program and if enough time is to be allowed to determine the impact of educational programs upon the problems of health manpower supply and distribution.

In the context of partnership, I was also reminded that the AHEC program must not be content with relationships between the university and the AHEC alone but must encourage a growing and entangling partnership between the AHEC and other community hospitals, health agencies, and educational institutions as well as with other major public efforts such as the National Health Service Corps, the Emergency Medical Service, etc.

A second reminder for the future is that although partnership is important, it is only a process. The AHEC Program must be concerned with specific program performance and outputs in the area of manpower supply and distribution. We are about to enter our fourth year of activity, and although Mr. Lawton appropriately observed that it is too early to expect tangible outputs in health manpower supply and distribution, he clearly indicated that the U. S. Congress will expect such evidence after several more years.

The Conference has served to indicate that in terms of educational program performance, the national AHEC Program is making substantive progress. As measured by the numbers and types of students, residents, and practitioners receiving education and training through AHEC networks, our performance is reassuring. However, at this early date we must recognize that we really have little evidence to suggest that we have had an impact on the distribution of health manpower. We must be certain that our efforts are directed toward this end and that we are developing methods for measuring this impact. In this context, we owe Dr. Galusha a special vote of thanks for having indicated how the AHEC centered in Charlotte, North Carolina, has substantially changed the health manpower situation in at least one rural North Carolina county which had been officially labeled underserved by the Secretary of HEW. We all need to be reminded that such end points represent the public's real expectations of our efforts. Hopefully, in three or four years, Dr. Galusha can report to us that AHEC has had a similar influence in all 11 counties of the Charlotte region.

The third and fourth reminders that were brought home to me throughout the Conference are so interrelated that I will consider them together. On the one hand, the AHEC Program must be held accountable for its performance in the context of its social, institutional, and educational goals. A mechanism for accountability exists in the performance objectives keyed to the contract mechanism.

On the other hand, AHEC must develop an organizational framework that assures long term security. This security will obviously require continued funding, and in view of the lack of a national health policy which encompasses the long term funding of health manpower education and training, the AHEC program must look to State government and other sources. With demonstrated performance and some indication that AHEC can influence the supply and distribution of health manpower, such funding is not impossible.

However, a final reminder is necessary when considering long term survival. No funding source will provide scarce financial resources to the university for AHEC activities just because it has good intentions. The success of the AHEC Program really depends upon the sincere and continued commitment of both the UHSC and the regional community hospitals in fulfilling their appropriate responsibilities for improving access to health care services in community settings through the supply and distribution of health manpower of all types. These institutions are our institutions. To the degree that we in the AHEC Program retain and intensify our commitment to demonstrating the link between the educational process and the distribution of health manpower, our institutions will no longer be in a position to support an introverted position. This point alone provides an important dimension to the future of the AHEC Program.

Welcoming Remarks

Dr. Henry S.M. Uhl
Director
Mountain AHEC (N.C.)

As a transplanted Yankee who is now a native Ashevillean, I am very pleased to have the opportunity to welcome all of you to this conference. Before I leave the podium, however, I wish to take advantage of my position to say a few words. Successful innovation has seldom been a hallmark of the American educational system. One of the few permanent and fundamental changes was that which radically altered medical education as the result of the impact of the Flexner Report of 1910. Sixty years later, the Carnegie Commission report is beginning to have a major impact because change is needed again. None of us would be here today had it not been for that Commision's report.

Let me remind you, as I keep reminding myself, that innovation in education requires a long term outlook and a good deal of fortitude and persistence. Since this conference will often concern itself informally and formally with innovation, I would like to include a brief but pertinent quotation or two. The first political scientist to emerge in Western European society, Machiavelli, wrote in *The Prince*, "There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things, because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new." Nevertheless, we must try to bring about change in a rational and viable process. For it was Sir George Godfer who said, in his 1969 Michael M. Davis lecture at the University of Chicago, "Individuals will only get what they need in this complicated world of medical science if competent, understanding men have organized the deployment of mutually supporting services to that end."

It gives me great pleasure, then, on behalf of my colleagues and partners in the Mountain Area Health Education Center of western North Carolina, our board of directors, and our administrative and professional staff, to welcome you to Asheville where you will find a peaceful setting to continue our joint nationwide effort to achieve permanent change for the benefit of all the Nation. Before he died, one of the greatest humanitarian physicians who ever lived, Albert Schweitzer, was asked by some intrepid person if he would care to comment on the future of mankind. And he replied, "My knowledge is pessimistic; but my faith is optimistic." May all of us find the strength and the will to persist in our work with that same optimism and faith.

Dr. Christopher C. Fordham, III
Dean
University of North Carolina School of Medicine

In this opening session we have two very distinguished speakers, and therefore I am going to limit my remarks. I would like to characterize the Area Health Education Center program as a noble experiment. It is an experiment in several specific ways: first, in testing the capacity of a State to meet many of its own crucial health manpower needs with the strong support of Federal agencies; second, in developing the potential for a productive relationship between the university and the community; third, in the consideration of the advantages and disadvantages of decentralized and regionalized health education and training; fourth, in determining whether the educational process can serve as one method for improving the distribution of health workers and access to quality health services; fifth, in measuring institutional resiliency in several kinds of institutions; and finally, in considering our capacity to comprehend and tolerate the ambiguities associated with new and complex relationships. It is a noble experiment which I believe simply must work. I would like to acknowledge and thank my own colleagues in Chapel Hill and across the State of North Carolina for their accomplishments and progress toward demonstrating the validity of this experiment.

Mr. William C. Friday
President
University of North Carolina

I want to join with Dr. Uhl, Dr. Fordham, and all of our colleagues in this State in greeting all of our out-of-State friends to this session. It is a pleasure to be associated with the people in our Area Health Education program in North Carolina.

You can read a lot and hear a lot about the tensions in universities between health affairs programs and the overall university around the land. This has sometimes been exaggerated in places. I want to say that, for this State and this university, there could not be a more cooperative, forward-looking, and productive association. I think the AHEC program is an eloquent testimony to this relationship. We began this statewide program with full confidence because we knew that our colleagues would succeed. I think the evidence abounds that it has. As Dr. Fordham suggested, the Area Health Education Center program in North Carolina is really our bright new adventure in this State. In the 14 sessions of the General Assembly of North Carolina that I have known I have never seen

Dr. Fordham introduces President Friday and Dr. Gordon at the opening session of the conference.

anything like the legislative acceptance of this endeavor. Indeed, at this time, which we call the recession, this is the one proposal that I feel is going to continue to move forward with the level of funding that has been requested, simply because the leadership of the particular areas of North Carolina where Area Health Education Centers are now functioning has been involved and has participated well beyond the initial talk stage. AHEC is now a clearly identified public service. Legislatures put money in programs where they see competence in people, results, and services to people.

Those of you from out of State might be interested to know that in 1974-1975 the General Assembly put $28.5 million into this program in North Carolina. About $23.5 million is for the construction of educational facilities at each of our nine AHECs with the remainder being our operating budget. The General Assembly is in session in Raleigh right now, and we are asking for an $8 million operating budget for the first year of the next biennium and over $11.5 million for the second year of the biennium. In other words, a major and substantial commitment, because our legislators have experienced their association with the leadership of the program in North Carolina and are confident in it.

The Carnegie Commission concluded its work after 6 years of intensive study of many problems in American higher education. This group met 33 times in 26 cities in 22 States and the District of Columbia and in Puerto Rico. I was not a good attender, for many reasons, and I felt deprived in that experience. However, the other members of the Commission did attend almost all sessions over this span of time. This was important, because they were identified with the interested citizens, educational leadership, and political leadership all over America. One of the first major areas to which the Commission addressed itself was health manpower. I would say that probably among all of its work, these recommendations have been those most widely accepted. Area Health Education Centers grew out of that particular report. We felt that the manpower problem was then and still is one of America's great and pressing needs.

Now, one of the people who took the responsibility to guide this Commission, gave it direction, kept us together, and indeed more or less shepherded the whole group for a long, long time, was Dr. Margaret Gordon. She has had a very distinguished career in industrial relations, labor and manpower problems, has worked in the field of poverty and welfare, and is the person who I feel contributed so much to six of the major Carnegie Commission studies that we did. Margaret Gordon is especially well qualified to speak on the Carnegie Commission's perspectives of health professional education.

Decentralized Health Professional Education from the Carnegie Perspective

Dr. Margaret Gordon
Association Director
Carnegie Council on Policy Studies in Higher Education

One of the most exciting things that has ever happened to me has been to see something that was just an idea, just a gleam in the eye, come into being and spread all over the country. I am going to talk about the genesis of the Area Health Education Center concept, but before doing that, I think it is very important to place that concept in its proper perspective in relation to the other recommendations that the Carnegie Commission made in its 1970 report, *Higher Education and the Nation's Health*. All the recommendations in that report were interrelated because they addressed a common set of problems: the shortage and the geographical maldistribution of health manpower. The Carnegie Commission report started out with certain basic assumptions: that we had an inadequate system of health care in the United States; that we had a very inadequate system of financing health care; that we had a shortage of health manpower of all types, including physicians; that we had a serious problem of geographical maldistribution of health manpower; and that in all probability a full solution of all these problems would require the establishment of a national health insurance system.

The Commission had very little to say about a national health insurance system beyond criticizing and discussing the weaknesses of the existing private health insurance system in the United States, because it was a commission whose terms of reference related to higher education and it felt it would be stepping out of those terms of reference if it got into the broad and complicated problem of financing medical care.

There have been some, including a good economist friend of mine, Victor Fuchs, who have disputed the fact that there is a shortage of physicians in the United States at the time of the Carnegie Commission Report and later. We were convinced that there was. We cited a number of pieces of evidence to suggest that there was a severe shortage: long waiting lines in emergency clinics, the long working hours of the average physician (60 hours a week according to one survey), and the influx of foreign medical graduates which, as I am sure you all know, has by no means abated since 1970 when the Commission's report was published. Consequently, a very substantial part of our report was concerned with recommendations aimed at increasing the supply of physicians. First, we wanted to see the size of entering classes to medical schools increase. Second, we wanted to see medical education accelerated, chiefly through overcoming a certain amount of overlapping between premedical and medical education. Third, we wanted to see earlier clinical experience, which medical students lacked. Fourth, we wanted to increase the supply of Physicians' Assistants, through programs which were just barely beginning, like the one under Dr. Estes of the Duke University School of Medicine, because we felt very strongly that increasing the supply of Physicians' Assistants and other types of allied health manpower would not only make for more effective health care assistance, but also result in utilizing the highly trained and educated skills of the physician more effectively. Finally, the report called for very substantial Federal aid to medical and dental education. I am not going to discuss these recommendations, because it would take me too far astray from the main theme of this talk, but we were very pleased that the Comprehensive Health Manpower Act of 1971 did incorporate most of the recommendations of the Carnegie Commission.

Now I am going to come to the heart of the question: how did the concept of Area Health Education Centers develop? I think we have to look at this development as being intimately bound up with the debate over how many new medical schools the Commission ought to recommend. We began with a general principle, which was backed up by some research but was in part judgmental, that there ought to be a medical school in every metropolitan area with 350,000 or more population. We identified about 25 such areas in the United States that lacked an existing medical school. We held a series of meetings with experts in medical education, first in New York in December 1969 and then in Boston in February 1970 at the Harvard Medical School under the auspices of Dean Robert Ebert. At these meetings the number of new medical schools which the Commission ought to recommend became a subject of very substantial debate. I recall particularly John Dunlop, who is now the Secretary of Labor, emphatically rejecting the recommendation of 25 new medical schools. He felt that the expansion of medical education could be accomplished much more economically and efficiently by simply expanding the capacity of existing medical schools.

Clark Kerr and I both thought John Dunlop's point was well taken, although we also felt that there was a case for an adequate geographical distribution of medical schools. Medical schools do, after all, play a role in attracting health manpower to a community. They also generally improve the quality of medical care in the communities in which they are located. Sometimes this happens not because of conscientious planning on the part of medical schools, but simply because their very existence attracts physicians to the area. I am not off the subject now, because there is a very important relationship between the way in which we conceived the role of Area Health Education Centers, and the way in which we conceived an expanded role for medical schools, which we preferred to call "university health science centers," and indeed some of them were moving in that direction and were becoming the center for a group of health manpower educational institutions.

We felt that the function of university health science centers should be expanded, that the Flexner model was too narrow; admirable but too heavily concentrated on scientific research. We thought that university health science centers should be responsible for coordinating the education of health manpower of all types in their areas; that they should cooperate with community agencies in improving health care delivery; that they should cooperate with comprehensive colleges, community colleges, and other institutions including high schools in planning and evaluating the training of allied health personnel; and that they should place a great deal of emphasis on conducting continuing education programs for physicians and other health manpower.

Considering this expanded role for university health science centers, we took another look at our recommendations on new medical schools. I decided that some of the metropolitan areas for which we had recommended medical schools were located pretty near to others. The most extreme example was Fort Worth, Texas, which was very near Dallas, so I crossed Fort Worth off the list. Finally, we came down to a list of exactly nine new medical schools.

While this discussion of how many new medical schools to recommend was going on, Dr. Mark Blumberg, who was one of several medical experts who were serving as a consultant on this work of the Commission, called our attention to some existing centers which had some of the features that we eventually identified as functions of Area Health Education Centers. One was the Mary Imogene Bassett Hospital in Cooperstown, New York. Clark Kerr had the imagination to seize on that concept as something that we might build into a major recommendation in our report. I think he deserves the major credit for taking something that he picked up in a casual conversation and saying, now here is something that we really ought to look at seriously and consider as perhaps an important element of our report.

In the end, I sat down at my desk and spelled out the functions of Area Health Education Centers as precisely as I could, and it was really very gratifying to have the Department of Health, Education, and

Welfare issue directives not so very much later which spelled out the functions exactly as the Carnegie Commission report had identified them. We saw as advantages of Area Health Education Centers some features that are very close to what I have been talking about for university health science centers. First, they would attract health manpower to the area. We actually did not have much to go on except for some anecdotal evidence and some research that suggested that residents—something like two-thirds of them—tended to settle down in practice in the same area in which they had experienced their residency training.

After our report had come out I remember meeting Dean Richardson of the Emory University School of Medicine. He told me about a town in Georgia which had had a terrible time attracting physicians. Some people in that town came to him and said, "Can you do anything to help us?" They started a residency program in the hospital in that town and it was not long before the town was beginning to attract physicians. Thus far we have had unfortunately, I think, no good statistical evidence—sooner or later we will—on the impact of Area Health Education Centers on the attraction of health manpower.

The second point is that they would improve the quality of medical care. I think this is a very clear and indisputable point. Third, they would be more effective centers for the education of family physicians for the delivery of primary care and long-term care and health maintenance than would the highly specialized university health science centers. That is a point that was spelled out more effectively, I think, in a paper given by Dr. Edmund Pellegrino at the 1972 annual meeting of the A.A.M.C., although I think it was implicit in the Carnegie Commission Report.

Fourth, AHEC's could be developed at very substantially less cost than new medical schools and yet serve many of the functions of medical schools. Fifth, they could hopefully forestall the development of medical schools in many communities that do not really need them. In fact, about the time that our report came out, I was told by Dr. Ruhe, the director of the Council on Medical Education of the A.M.A., that there were more than 70 communities in the United States, as contrasted with the nine that we finally recommended, that were attempting to develop plans for new medical schools. I have since had some intimate contact with the strength of the pressures in individual communities to attempt to develop a new medical school. The Chamber of Commerce gets going, the Medical Society gets going, everybody sees it as something that will contribute to the economic welfare of the community, and so we have a new plan for a medical school.

I would now like to discuss something that has recently been attacked: our identification of the locations of 126 Area Health Education Centers in the United States. This, I think, was an example of Clark Kerr's desire, and in general the desire of the Commission, to be fairly specific in its recommendations on the ground that if you just issued a series of platitudes nobody was going to pay much attention; if you came up with specific recommendations, they might be subject to attack but they would get a lot more attention. A recent article, which many of you may have seen, by Miike and Ross in the *Journal of Medical Education* for March 1975, quoted another writer who said that the Carnegie Commission was exercising "unbelievable presumption" in identifying 126 locations for Area Health Education Centers in the United States. I anticipated that kind of criticism. I would like to read a paragraph from the Report which I think is relevant:

> The Commission believes that the final selection of locations for Area Health Education Centers should be based on careful regional planning. We are therefore suggesting the locations indicated by our analysis but are not firmly recommending them. However, we believe that the number of centers indicated by our analysis is probably quite close to the number that would be needed to provide adequate geographical distribution of these centers.

That plan for 126 locations was my work, by and large, but other people also had a finger in it. I remember that one day I was in Clark Kerr's office and he was looking over the locations that I suggested and he said, "What about Camden, New Jersey?" And I said, "Well, Camden is part of the Philadelphia metropolitan area and presumably would be served by whatever number of centers might be located in the Philadelphia metropolitan area." "Well," said Clark, who had grown up in Eastern Pennsylvania, "people in Camden never get along with people in Philadelphia. I think you'd better suggest one for Camden." And we did.

On another occasion, former Governor William Scranton of Pennsylvania was looking over the suggestions for locations that were in a draft that went to a Commission meeting. He said, "I think you've got one too many in Western New York State. I'd take one of those out." And he said, "What's the case for three in Wyoming, with its sparse population?" So the number in Wyoming came down from three to two. I am telling these stories just to point out that the Commission members did take an active role in commenting on many of the things that came out of the staff. Although the set of suggestions for 126 centers was probably not perfect, I do know that many of the communities we identified are communities in which Area Health Education Centers have since been established.

Now I am going to make some final comments of a more general nature which I hope may stir up perhaps a little discussion and debate. The problem of geographical maldistribution of health manpower in the United States, so far as I can determine, is still serious. There is a big lag in the appearance of the statistics, so we do not know exactly what the picture is today, but the latest figures I have seen, which I think are for the year 1972, suggest that between the time we were doing our analysis (we had figures for 1968) and 1972, the ratios of physicians and other health manpower to population rose throughout the country. However, the differences from region to region did not diminish to any extent. That is, if you took the ratio of the number of physicians per population in Mississippi, which is the extreme example of an underserved state, to that in New York, you would still find that the ratio was as small in 1968, approximately. We obviously still have a geographical maldistribution problem and we are going to have to work at it indefinitely.

Area Health Education Centers will make a very substantial contribution, but by themselves will not solve the problem. I think we must move toward national health insurance combined with something like prepaid medical care programs—or health maintenance organizations, as they were called at one point by the Administration—including in those plans some provision for a premium payment for health manpower who agree to work in underserved areas. The British have a feature of that kind in the British National Health Service. I would suggest that there has to be a carrot in the form of economic benefit to attract health manpower to seriously underserved areas, which tend to be low per capita income and rural areas. I am dubious about the features of research bills that have been considered in Congress in which medical schools would be forced to extract pledges from all, or a certain proportion of, their students to go to underserved areas to practice in order for the schools to receive capitation payments from the Federal Government. I do not think that would work, and I do not see how medical schools could enforce it.

I think there are other approaches to this problem. I would like to see continued development and expansion of the National Health Service Corps, which is specifically designed to serve disadvantaged areas. And hopefully—and I think this has become increasingly true in the last six or seven years—the medical students that we have today tend to be a somewhat different breed from the more traditional medical student. They seem to be more concerned about serving the disadvantaged and may be more willing to go to areas that are underserved.

I would like to emphasize the point very strongly that we recommended in our Report that Area Health Education Centers should be affiliated with a medical school and that their educational programs should be supervised by a medical school faculty. That, as some of you I am sure know, has been a subject of very substantial debate and controversy, particularly in connection with the centers sponsored by the regional medical programs. But I do not see any sound basis for disputing the fact that a high-quality Area Health Education Center program should be supervised by medical schools.

I think we are in danger of developing too many medical schools. You may have seen copies of a report that Clark Kerr made to the Southern Governors' Conference last fall in which he was quoted rather extensively as saying that we were developing too many medical schools and that this could lead to a surplus of physicians in the 1980s. I am not much disturbed about the possibility of a surplus of physicians in the very near future, but I do think that we have a problem in connection with the location of new medical schools. The Veterans Administration now has funds available for the purpose of establishing new medical schools. This is admirable, in a way, and the Veterans Administration has of course cooperated in the establishment of a good many Area Health Education Centers. However, it is very poor administratively to have two different agencies of the Federal Government involved in decisions as important as decisions to establish new medical schools.

Finally, there has been a lot of discussion in the last few years suggesting that we are overcoming the shortage of physicians and other health manpower. I do not think that we have overcome the shortage of physicians. I think that we have overcome the shortage of nurses in some urban areas but not in small communities and rural areas, and we certainly have not as yet overcome shortages of allied health manpower. I am not worried about the prospect of a surplus of physicians. If anybody wants to ask me why, we will leave that for a question period.

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Audience Questions and Discussion

Mrs. Carol Eady, Illinois: Dr. Gordon, I wonder how nursing got into the act.

Dr. Margaret Gordon: Well, the Carnegie Commission was criticized because its report, called *Higher Education and the Nation's Health*, was concerned with medical and dental education and did not cover nursing and the entire spectrum of allied health manpower. There was a good reason for that, We could not possibly have brought out a report at the time we did, in October, 1970, if we had tried to cover the entire spectrum of health manpower. And there was a very important reason for bringing out our report in October, 1970. The Health Manpower Training Act was going to be expiring the following June, and at the time our report came out the White House had initiated the organization of several task forces within the Federal Government to consider the whole question of what was known as "health options," including national health insurance as well as health manpower education, and our report came out at a time—at just the right time—to influence the discussions that led up to administration and congressional proposals on that act. I participated in an extremely interesting meeting at HEW in November of that year in which there was quite a debate about the whole approach. As far as nursing and allied health manpower are concerned, we did have quite extensive sections on those professions in a subsequent report called *College Graduates and Jobs*, and we had some discussion of those professions in other reports as well.

Dr. Keith G. Foster, North Dakota: Dr. Gordon, may I take issue with something that you said?

Dr. Gordon: Yes, indeed.

Dr. Foster: I feel that there are incentives already. I have been a practicing physician in a small town. You can reap a lot of money practicing in a small town, but it is lonely. And I think that the idea of a financial carrot to provide incentives in itself is not valid.

Dr. Gordon: Well, I am not absolutely convinced that if Area Health Education Centers develop to the point where we have an adequate network around the country that a carrot in the form of monetary incentives necessary. I think it may be more necessary in some very low income areas where the deficiency of health manpower is attributable to the severe lack of purchasing power of the people who live in those areas to afford medical care.

Dr. Edward P. Donatelle, North Dakota: Dr. Gordon, you invited the question, and I am responding. Why do you think we will train an oversupply of physicians?

Dr. Gordon: Well, there are several considerations that I have in mind here. To the extent that there is any evidence that the shortage is perhaps less acute today than it was in 1970 when the Commission's report came out, it includes, in the supply of physicians, a very large number of foreign medical graduates, some of whom, as you know, are coming from underdeveloped areas where the quality of medical education is not very good. Now, I feel very strongly that the United States, as still the most affluent country in the world, should not be importing its medical manpower. It should be developing its medical education facilities to the point where it is serving underdeveloped areas by making medical manpower available to them. It is going to be a long time, under existing conditions, before we get to that point. I also feel, although I am not sure what the answer is, that it is extremely unsatisfactory to have a situation in which the ratio of applicants to admissions in medical schools has been going up sharply. Large numbers of people who want to study medicine can't get in. They flow over into universities in other countries some of which have something like 6,000 American medical students. Finally, physicians have the highest average income of any profession in the United States, by a good deal. If we were able to come to the point where we had an impending surplus of physicians, that surplus would not take the form of unemployment of physicians. It would take the form of some reduction in their average income relative to the average income of other professions.

Dr. Alice Major, Missouri: Dr. Gordon, I am intrigued by your remark that you think we are overcoming the nurse shortage.

Dr. Gordon: I was very careful to say "in urban areas." Perhaps not in all urban areas, but I have seen evidence in the last couple of years that the severe shortage of nurses is not acute in a good many urban areas. We still have just as serious a problem of geographical maldistribution of nurses as we do in the other health manpower professions, I think.

Dr. Major: Yes, this was to be the latter part of my question. If this is so, then I happen to be in one of the urban areas where the shortage is so acute it is unbelievable. Nursing care is done by aides a good deal of the time because of the shortage. And do you have any suggestion for how we can induce well prepared nurses to be better distributed throughout the United States, if indeed we have enough of them?

Dr. Gordon: I think that we are going to have to have very special programs to accomplish that. For one thing, a nurse, particularly if she is married, may not be able to move to another area. And a large proportion of nurses are married, and they have an incentive to stay in the area in which the husband is employed. So, there is a problem with nurses that is more acute in that respect than with physicians. It seems to me that we are going to have to have more programs along the lines of the National Health Service Corps before we begin to have an adequate supply of nurses in underserved areas.

Dr. Christopher C. Fordham, III: The chair would like to ask a question. On the issue of the numbers of physicians, unless we are attempting to redistribute physicians by producing so many that the surfeit will push them into the underserved areas, which I don't believe has been a proven method of redistribution in any country of the world, then there must be some point at which the numbers become a less crucial concern. One of the things that disturbs me, and I wonder if you have any thoughts about it, is that I am not sure that the complaints that we hear from citizens about availability and access and acceptability of services available to them are very clearly correlated with the number of physicians per population in the area in which they live. I think we see almost as many complaints from cities where there is one physician for every 600 people as we do from towns where there is one physician for every 1,200 people.

Dr. Gordon: Well, I think that is right, because the average individual, even a reasonably affluent individual, has the experience typically of not being able to get an appointment with a physician quickly, of having to sit and wait for quite a while when you get to the office, and so on. I think we have to work on all the facets of this problem, using the skills of the physician more effectively through expanding the supply of physicians' assistants, and through more effective organization of the health manpower team. We really do not have in the United States, and the nurses complain about this a great deal, effective cooperation among the members of the health manpower team. There have been immunerable articles which criticize the way in which the nurse does not really feel that she is a part of a well functioning health manpower team.

Dr. Fordham: So what you are really saying is that it is not just the numbers and the distribution, both of which are important, but also the organization of how we deliver health care.

Dr. Gordon: That's right.

Dr. Ismael Bob Morales, Texas: Dr. Gordon, you commented earlier that national health insurance and HMOs are a potential answer to the geographic maldistribution. Also, you mentioned the physician extenders. How do you see the appropriate utilization of physician extenders to deal with this problem, given the current restrictions that exist in the utilization of this type of health personnel?

Dr. Gordon: On the first question, I am not optimistic that we are going to get a very comprehensive or adequate national health insurance system. I think we have gone too far in the development of our own special American combination, which I don't think is very satisfactory: private health insurance serving the healthier and the more affluent part of the population, and Medicare and Medicaid serving the aged and generally the disadvantaged and low income portions of the population. If we had a truly comprehensive national health insurance system, the effect would be to channel more purchasing power for health insurance into the currently underserved areas, because the funds would be collected nationally but expended locally. There might have to be some special inducements, especially in some very low per capita income areas, to attract doctors there. Now that might not be quite enough, but I think it would help.

On your second question, about physician extenders, I am not thoroughly familiar with all of the legal developments in all of the States, but I have the impression that quite a number of States have enacted legislation just in the last 5 years or so which authorized the recognition of physicians' assistants, but with certain restrictions on just exactly what they can do, with general provisions that they have to work under the supervisions of a physician, and so on. But don't press me too far on that one because I am not really an expert on this.

Mr. Howard Barnhill, North Carolina: You have made reference to the health care delivery team, but no reference has been made regarding public health personnel. To what extend, and where, did the Commission see public health in this overall team as far as the improvement in the health care system?

Dr. Gordon: We did not have too much that was specific to say about that beyond supporting something like the National Health Service Corps, which is an arm of the U.S. Public Health Service. We did have a recommendation to the general effect that schools of public health should be closely affiliated with medical schools and should, ideally, be part of a university health science center and not on a separate campus. But, on the role of public health personnel, we did not say anything very specific in the report.

Dr. Emmett R. Costich, Kentucky: Dr. Gordon, when you began you talked about health science centers and about the large range of people involved, but ended speaking about physicians and medical schools. I have observed in some sessions that health service needs get equated with physician needs, or with the need for a physician, rather than the whole team approach.

We presently have a system of Area Health Education Centers under the direction of medical schools. I wondered what the thought might have been about putting them under the direction of health science centers, rather than medical schools, and by doing this having some impact on the curriculum that is utilized in teaching so that the integration of team services could occur through a centralized approach, or a whole group of schools getting together to adjust their curriculum to do the job. Perhaps I am misinterpreting it, but it appears to me that the present system perpetuates the educational program that exists, rather than modifying the curriculums to meet the future needs of the utlization of the expanded personnel.

Dr. Gordon: First, let me say that when I refer to a medical school I really mean a university health science center, and one that has not just a medical school, but a dental school, a school of nursing, allied health manpower training, a school of pharmacy, etc. All those schools ought to be working together. As for continuing traditional education, I think that the Carnegie Commission report had quite a lot to say about the need for reform in medical education, not as much about other health professions, but that was not an aspect of the report that I wanted to focus on in my remarks this morning.

Dr. Fordham: I would like to comment on that, Dr. Gordon, by simply saying that the program of a medical school-community hospital affiliation is nothing new, going back many decades, and it can be productive and helpful. In North Carolina in most of the centers the concept is truly one of a partnership among the health science schools and the communities. Without the full range of the health science schools in our program in North Carolina, we would not have anything like the promise and hope that we have for it.

Panel 1

Regionalization and Educational Program Development

Moderator: Dr. William Wiese
Project Director
New Mexico AHEC

Panelists: Mr. Don Arnwine
President
Charleston (W.Va.) Area Medical Center

Dr. C. Glenn Pickard
Medical Coordinator,
Family Nurse Practitioner Program
University of North Carolina School of Medicine

Dr. Douglas Fenderson
Director, Office of Continuing Medical Education
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Introduction

Dr. William Wiese

The AHEC phenomenon brings into focus a number of important issues regarding the training of health professionals. I would like to identify three of them here by way of introduction to a panel discussion on regionalization of medical education.

The first is the issue of certifiability of the students and trainees who are products of the regionalized education process. Legal certification generally is based upon documentation that a person has successfully completed a course of study in an accredited program. An examination may be required as part of the process of certification. It is broadly recognized, however, that the examinations are incomplete indicators of competency. Much importance is attached, therefore, to the fact that the individual has completed the training in an accredited program. But, just as the evaluation of the individual student has always been an imprecise process in medical education, so is the accreditation of the schools and programs also an imprecise art. Accreditation is based upon the enumeration and assessment of the resources available and on curricular format. Programs are deemed to be enhanced by being within the rich academic milieu of the health sciences center. Throughout, there is a strong element of faith that the established systems of centralized education do indeed work. (A sign of the times is the stand by organized medicine and medical education against the free-standing internship, and the closing out of such internships by various residency review committees.)

AHECs are built on the premise that educational programs can be delivered entirely or in part at sites away from the academic health sciences center (but with adequate ties to the health sciences center). With student evaluation being the difficult task that it is, the question arises as to what is meant by the phrase "adequate ties." Is the training of students at remote sites equivalent in quality to what is done at the parent health sciences center? Are the educational elements deficient for not being geographically located at the health sciences center, with the immediacy of multiple disciplines, the sub-specialty services, and the academic atmosphere? Can we vouch for the quality of the programs that are outside of the ivory tower? Can students completing these programs as physicians or mid-level practitioners be licensed and certified with the same confidence as students who are trained within the health sciences center? These are questions that are being asked by the examining and certifying boards. They are a challenge for which the proponents of regionalized medical education must provide an adequate and convincing response.

The second issue is that of meeting student and regional needs. The AHEC concept calls for decentralizing the educational process as a way of training students from a particular region at sites within that region. This means building or relocating major elements of the medical system at sites more available or appropriate to the students' needs rather than requiring that the students go to the health sciences center. Will this have a beneficial effect on recruiting new students into the medical profession? Will local training in fact lead to local placement? What will be the impact of the AHEC on retention of professionals practicing within the region? Can local education have an impact on the preservation of local or regional perspectives, and how important is this?

These last questions are very relevant for the AHEC supported through the University of New Mexico in the Navajo Indian Reservation. This AHEC seeks to attract, educate, and retain Indian health professionals. Can offering training programs in the settings and environments of the Indian people effect better development of manpower resources? Can efforts to adjust the pace and content of the curriculum to meet individual students' needs have a salutary effect on retention in the training programs? Will there in fact be successful reinforcement of the students' stated interests in remaining in the area? Will efforts to insert aspects of local cultural environment into the training program lead to better outcome in terms of retention of professionals in practice and on style of practice?

The third issue is that of the purported enhancement of relevancy of curriculum and its content by using remote locations. One opportunity invoked by the AHEC concept is that the educational program will be in a setting similar to the medical practice situation. This argument has been applied in particular to education in primary care, such as preceptorships for medical students and rural rotations for family practice residents. How important is this? What are the tradeoffs and their expected impact on the quality of education?

These and other questions should be worded in terms of testable hypotheses and subjected to critical and careful analysis. Program directors must resist overcommitment to preconceived conclusions and rigid educational ideology. Funders must tolerate false starts and allow flexibility for program change in response to the results of study and evaluation. There is opportunity for experimentation in the AHEC setting. Interdisciplinary education and time-variable, competency-based curricula are examples of formats that might be tried in the relatively less encumbered atmosphere of the AHEC academic environment. AHEC-based programs may be under pressure to demonstrate that they are as good as the programs at the health sciences centers. This will lead to a tendency to copy or reconstruct the elements of the traditional health sciences center program in the AHEC environment. This pressure ought not be allowed to be so great as to stifle innovation and shut off the opportunities for creativity that the AHEC settings offer.

This panel will focus on several aspects of regionalized health sciences education that pertain to education in clinical medicine. This includes the clinical training of physicians at the undergraduate and graduate levels, the continuing education of physicians who are in practice, and the training of non-physician health personnel in the practice of the medical arts.

Panel #1: Dr. Wiese makes introductory remarks, seated (from left to right) are Mr. Arnwine and Dr. Pickard.

Medical Education: Undergraduate and Graduate

Mr. Don Arnwine

I have had the opportunity to walk both sides of the street in academic circles, having served 11 years as the Director of Hospitals at the University of Colorado, which is a traditional and I suppose classical academic health science center, and now, for 3 years, as president of the Charleston Area Medical Center, which is a community hospital organization. Let me briefly summarize our efforts there so that you will understand the kind of environment from which these observations come. The Charleston Area Medical Center is a 904-bed multi-hospital organization that resulted from the merger of five hospitals in the Charleston area. Two of them have been phased out and we will, within the next few years, phase out a third, ending up with two major campuses. The merger of these hospitals resulted in an affiliation with West Virginia University and that affiliation resulted, in turn, in the creation of the Charleston division of the West Virginia University Medical Center. That division is headed by Dean Thompson and has presently a medical faculty of fourteen full-time people. Many members of the medical staff of the Charleston Area Medical Center (C.A.M.C.) are clinical faculty and make up the largest teaching component. At the time of the merger and affiliation there were only 36 house staff in the programs in the C.A.M.C., and 75 percent of those were foreign medical graduates. This coming July we will have 75 members in the house staff, and 75 percent will be American graduates, most of them from West Virginia University. In the interim there have been new programs created in psychiatry and in family practice, and the curriculum is evolving for both third-year and fourth-year students. This year 100 junior and senior students will receive part of their experience in Charleston.

With that as background, I would like to discuss the regionalization of medical education as it pertains to graduate and undergraduate medical students. In this regard it would seem appropriate to look at some of the differences that exist between the educational processes in the traditional academic health science center and those that exist in a regionalized situation, and try to visualize the impact of these differences and some of the trade-offs that take place between the two different kinds of education. Due to the nature of this audience and your sophistication in medical education, I will not get into the more obvious differences, such as the distance/size of community, the absence of basic sciences in the regionalized concept, and so forth. However, there are a couple of differences that are not so obvious that do merit some stress. First of all, regionalized education takes place in an institution that is, and ought to remain, principally a service organization with a major commitment to medical education. This is as opposed to the university medical center, whose principal purpose is medical education with a major commitment to service. Second, the academic health science center is ordinarily a tertiary care center, collecting mostly patients with esoteric diseases, whereas the community affiliate is a multi-level provider of services with more emphasis on primary and secondary care than tertiary care.

Without in any way demeaning the valuable and appropriate role of the academic health science center, I would like to point out a significant phenomenon of an educational process that exists in a tertiary-care facility. In that kind of facility, what a student sees is esoteric, extremely serious if not terminal cases, which are largely the result of referrals from some physician out in the hinterland. Eventually the student develops a perception of the referring private practitioner as a person who does not know how to treat such diseases or does not have the resources to treat such diseases or does not have the desire to treat such diseases. Now, each of those three facets to that perception are negative. Is it then any wonder that he resolves never to become like his perception of the private practitioner? This attitude is largely accountable for the high degree of specialization and subspecialization that we have seen. Experience in an affiliated community hospital with a good medical staff, beginning particularly at the third- or fourth-year level and continuing through the house staff years, will tend to mitigate against this phenomenon.

What about the curriculum and educational standards? Inasmuch as we are fairly dependent upon a structured curriculum to assure certain standards, what are the risks in a regionalized situation with relatively few full-time faculty? We will have to expect that there will be some differences in curriculum between the university center and the community center. Differences per se do not necessarily indicate lower standards. One need only examine the curriculum of some of the most prestigious academic health science centers to find major and significant differences in their curriculum, yet each are turning out well-qualified physicians.

The standardization of curriculum is unquestionably most acute at the third-year level, where there is a certain syllabus of information that has to be imparted. It has to be said that in a regionalized educational situation that there is an inherent risk that there will be less structure to the curriculum than in the university situation. For this reason, clerkships at the third-year level are extremely difficult to create and will evolve much more slowly than those in the fourth-year and postgraduate experiences.

Looking at the maintenance of standards of performance, it is germane to ask, "Do clinical faculty expect less of students than do full time faculty?" If we may generalize it would appear that they do expect less of the students in the way of academic acumen but probably expect more in practical performance. Since both are learning experiences, this is one of the trade-offs.

With these differences in the clinical exposure, the faculty relationships, the structure of curriculum, and the institutional atmosphere, what can we anticipate will be the difference in the product of this kind of regionalized education? It would seem valid to expect that a higher proportion of the graduates from a regionalized educational process will go into primary care, for four basic reasons. First, there are more models of primary care for the students to emulate. There are a greater proportion of family practitioners, general internists, and general pediatricians and a lesser ratio of specialists such as rheumatologists, cardiologists, immunologists, etc. Second, the decision to sign on at a community center indicates a pre-selection to private practice. Third, the attitudinal problem relative to the student's perception of the private practitioner will be overcome. And fourth, they will learn that they can be at ease with patients and with private practitioner colleagues.

What about redistribution? Will this regionalized education result in redistribution of physicians? Surely it will. I think there are early signs in our area that it has, although it is still too soon to prognosticate. I would not, however, be too optimistic that regionalized education will result in a substantial flow into the most rural areas. What about the quality of the product? Will the product of a regionalized educational experience result in the same quality as traditional education? When you want to evaluate quality in this context it is a matter of choosing your weapons. However that might be evaluated, it is too soon to say, although one might draw some tentative conclusions from the results of a recertification examination that was recently taken by over 3,000 internists that was administered by the American Board of Internal Medicine and that was reported in the most recent issue of the *Annals of Internal Medicine* (April, 1975). That study revealed that there was precious little difference between those in solo practice in communities under 100,000 versus those in communities of over 1,000,000; and very little difference between those who were members of full time faculties of universities versus those who were practicing in community hospitals. Although there was a vast difference in the kinds of education that over 3,000 internists were exposed to, those differences did not expose themselves in the results of a very comprehensive examination. Perhaps that is meaningful as we wonder about the quality of the graduates from a regionalized education process.

As I conclude, I would like to offer an admonition and a final observation. There is value in the pluralistic approach to education, and my admonition is that those of us in affiliated hospitals have to be alert to the tendency to do things that could cause us to emulate the university hospital. For example, our ability to recruit a good quality house staff has and will continue to multiply. In three or four years we could again double the numbers of house staff in our hospitals. But can we and still maintain the unique characteristics of a community hospital insofar as its services are concerned, and can we and remain economically competitive with other community hospitals? That is simply an example of a circumstance or an opportunity that has to be consciously thought through and not allowed to simply seek its own level.

My final observation is that educational programs, once wound up, are hard to wind down. Consequently, the time is past that we should regard this as an experiment and we should begin responding to it as if it was here to stay, because in all likelihood it is.

Reference

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Mid-Level Practitioner Development

Dr. C. Glenn Pickard

Just as Don Arnwine sketched for you his role, I think it is fair to tell you a bit about what I do. I am a member of the Department of Medicine, trained as an internist, and spend a part of my time in Chapel Hill working as a traditional academic physician, which is to say that I have the usual responsibilities in the Department including teaching rounds, etc. Be that as it may, I am also one of the latter-day internists who are viewed somewhat as the "crazy Charleys." Instead of doing basic biomolecular research, those of us in the group I am associated with engage in what is generally called general medicine, primary care, community care—a whole series of euphemisms describing a somewhat ill-defined area of endeavor. In this role, I have been an internist engaged in developing a training program for nurse practitioners housed in the School of

Nursing: an interdisciplinary program between the School of Nursing, School of Public Health, and School of Medicine for training what we term "family nurse practitioners." This program has been underway since 1970. We have now had 83 graduates who are scattered from one end of the State to the other, engaged in primary care, linked up with physicians in a team approach to the problems of primary care.

The basis of this program, I think, is relevant to the topic of regionalization. We have in North Carolina a common set of problems—a largely rural state with a declining family physician or general practitioner population in the smaller towns and rural areas. In the late 1960s we took a look at this problem and asked ourselves, "What can we do to get care back into the truly small rural communities?" Without going into the details, we elected to develop a training program for nurse practitioners of a particular nature. Our focus was to take the nurse who is in the community, bring her into a formal educational program which qualifies her to assume certain aspects of medical care, and then send her back into the community from which she came, to work with a physician in that community or in a nearby community to provide primary care. The entire nature of our program depends to some extent on regionalization. If we are going to solve these problems, or make an attempt to solve the problems of the State of North Carolina, it is obvious that the ideal nurse can't really come to Chapel Hill and spend six months in the formal training program because the ideal nurse for this type of program is the nurse who can least afford to pull up roots and move to Chapel Hill. The nurse we are looking for is the nurse in the community, married to someone in the community, stable in the community, who knows the community's mores and its medical practice. This person is as noted least apt to be able to come to Chapel Hill. Consequently, in the development of our program we began to think early along the lines that if we could develop the curriculum and it worked in Chapel Hill, then in time we needed to get this same type of program out into the smaller communities of the State through the vehicle of AHEC. In 4 years we have succeeded in doing this. The majority of the graduates have been trained in Chapel Hill, but last year our program was offered to the Health Foundation of Eastern North Carolina, an AHEC encompassing five counties in eastern North Carolina. The plans now are to continue with that development in the eastern part of the state and, beginning in the fall of this year, to have a similar nurse practitioner training program operating here in Asheville for the western part of the state.

Implicit in our general scheme of things then is an attempt to regionalize the programs. What I would like to do this morning is to address myself to some of the problems that we have had that I think are generic and germane to the problems of regionalized education, particularly as it applies to mid-level practitioners. The same kinds of problems that Don Arnwine has alluded to exist in our program, but I think they are complicated by a couple of other features. Medical education has, over time, despite curricular tinkering, been a relatively standardized commodity. A physician is a physician, medical education is medical education, and despite efforts to modify curriculum and make changes of an innovative sort, we still generally understand who is a doctor, what is a doctor, and what his training and preparation in general look like. In addition to this we have a series of external forces which monitor medical education. These external forces are the various accrediting bodies, such as the state licensure boards, board specialty certifying mechanisms, National Medical Board examiners, etc. There are a series of groups that are standing over our shoulder and testing, albeit imperfectly as all of us admit, the product. However, presently, the education of people such as nurse practitioners does not have the same highly developed series of external controls. There are, in the case of nurse practitioners, no national standards for family nurse practitioners. Pediatric nurse practitioners and Physicians' Assistants do have national standards, but I think in general that as we move into the area of mid-level practitioner education the standards are less well understood and there is still more innovation and experimentation in curriculum, and more innovation and experimentation in role model. As the notion of nurse practioners and physicians' assistants has caught on around the country, everybody and his brother has gotten into the act. And with good reason. It is a logical approach to the problems we are facing. Each small hospital that is in the education business, each technical institute, each community college, not to mention the universities and medical centers, has said, "We need to get into the physicians' assistant and nurse practitioner business." There are a whole host of people eager to get into this business with a product that is somewhat ill-defined. To regionalize these programs, to send them out into these smaller areas in order to capitalize on the advantages of such regional education programs, presents an immediate problem in terms of who's going to be training who to do what. What is the role and how are you going to train these people? Then who is going to certify that they are competent? Who is going to certify that their educational experience has been good? How are you going to achieve these things?

Briefly, I would like to sketch for you how we have approached this in North Carolina with regard specifically to the nurse practitioner training program, with which I have been associated. I think there are several features of this program that are worth mentioning that have to do with how one might achieve the goal of regionalization. I think the first features, one that is greatly underemphasized in much that is said and written, might be termed "personal diplomacy." A major part of whatever success we have had in the AHEC program in North Carolina I think is attributable to the fact that the faculty in Chapel Hill, the administrators in Chapel Hill, the program schemers, dreamers, and developers have been a very mobile group. This is in large part due to a resource that was made available to us early along, the University fleet of airplanes. We have now six small airplanes with which we travel the State. I do not think we should underemphasize the importance of mobility. It does not necessarily require airplanes, but that just happens to be a feature of our program. The faculty in North Carolina, at Chapel Hill, have been willing to go out and talk to people in the regional centers about what they have in mind when they say they want to develop a nurse practitioner training program. And as I said in the beginning, I think personal contact has been underemphasized in much that has been said and written. You can send letters, you can send curriculum outlines, you can send communications back and forth endlessly, you can talk on the telephone, but you really can't beat going out and sitting down with a group of people and saying, "What is it you're really talking about? Are you talking about a screener of well children, are you talking about a nurse who is qualified to work in a hospital, are you talking about nurses who are capable of making medical diagnosis, prescribing medical treatment? What is your notion of a nurse practitioner?" We engaged in the program at Chapel Hill have had endless conversations from one end of the state to the other with those who are interested in this basic approach both from a service point of view, wishing to employ nurse practitioners, and from the standpoint of developing a training program. This experience has been invaluable and I would put personal diplomacy at the top of my list of features which have been crucial to our program.

Personal diplomacy is also very important in trying to develop a standardized curriculum. If you can agree on the role, if you can agree on the model, can you develop curriculum that is usable in Chapel Hill in the somewhat crazy hothouse environment of the University Medical Center and still usable out in the small community hospitals in their somewhat different setting? We have made major efforts in this direction. We now have, as I say, a major curriculum that has been exported once. We recognize that it is imperfect and that we do not have all the details, but it has worked once and with continued refinement we think it can be exported. It is a flexible curriculum. We try to give an outline of what needs to be done. We also have developed a fair amount of material in the form of self-instructional programs which can be used in Chapel Hill or in the remote site. Still we are not completely convinced that this in and of itself is adequate. You just cannot give a curriculum to someone else, and say, "Now go do it." They have got to be able to change and tinker with it to an extent, and that's where I think personal diplomacy becomes important. Can you go out with your curriculum and interpret it?

Another feature that we feel is important is developing full-time faculty in the regional site who are responsible for implementing the program. You cannot simply drop teaching responsibilities on the local school of nursing or on the local physicians who think they want to have a nurse practitioner program. You really have to have someone out there in situ who can be responsible for seeing to it that what you intended was in reasonable fashion carried through. We feel that this full-time faculty should include not only those who are going to be responsible for the teaching, but also individuals who may act as a role model for the product in advance of implementing the program. So, in a community that is interested in developing regional programs, we would try to get a nurse into the program at Chapel Hill, have her go back and double as both a role model in a practice situation and an adviser to the group that is developing the training program. As you can see, people in that position often get strung out. They are supposed to be a role model, a practitioner, a healer of disease, the major domo of bird-dogging the curriculum, and also a politician worrying about the legislation in Raleigh. It can be a very difficult position at best, but we feel that is of real consequence.

The last thing that we think is important is the whole business of testing and evaluation. Good intentions are simply not enough. Our experience has led us to believe that you really do have to have a series of controls through quizzes, tests, and evaluations. This is a major bone of contention, since developing the perfect instrument to test the kinds of skills that you are trying to impart is impossible. All of us who have struggled in the area of testing and evaluation realize that it is an imperfect art, not a science. However, we do feel, based on our experience, that it is very important that the regional program agree in advance that they will use at least the major examination format that we in Chapel Hill develop in collaboration with them. This does not include minor in-course quizzes, seminar-type oral discussion, and so forth, but the major modal points in the curriculum, the major tests. In the absence of any major development up to this point of an external certifying body, we think the regional program should agree to use the same testing material that we in Chapel Hill are using. If you are going to export a program on a regional basis in a geographic area like a state, then you must insure that you are producing a commodity that is the same and testing is a major part of that endeavor.

In a nutshell, those are my observations on our experience. There are many, many things that I would say about the regional educational of nurse practitioners, but I think that these are the key points in our attempt to regionalize the education. I would be happy to respond later to any particular points you may wish to discuss.

Continuing Education

Dr. Douglas Fenderson

Although there is little evidence of its value, continuing education is one of the high-demand commodities of our time. Providers of continuing education have provided a veritable flood of brochures. Physicians tell me that they receive several hundred a year. Last year's AMA listing of current programs lists some 3,677 courses given by 876 institutions of which 440 were accredited by the AMA. That, of course, does not include all of the State and local courses provided by individual hospitals or specialty societies, or many courses provided by the voluntary health agencies. Evidence of public concern with quality of care is seen in the remarkable escalation in malpractice claims and costs. That happens to be one of the very important health care policy issues of the time, as evidenced by PSRO and other legislative actions.

Medicine and other health professions, eager to provide some public reassurance on the question of quality of care, short of intrusive performance and outcome monitoring, have chosen continuing education and its ennobling slogan, "life-long learning," as an acceptable compromise. Several State associations are following the lead of Oregon, which requires continuing medical education as a condition of membership in that State association. That is also true in the State of Minnesota. Perhaps half a dozen States are now requiring, under the medical practice art, some indication of continuing competence on the part of physicians and in some instances other professions as well, One state, New Mexico, has a relicensure requirement. In both of these circumstances the requirements are totally or in part fulfilled by evidence of participation in continuing medical education. The American Medical Association, through the Physician Recognition Award encourages physicians to participate and accumulate credit. Several specialty medical societies either now require, or soon will, evidence of participation in continuing education as a condition of membership or as part of a recertification process. The notable example, of course, is the Academy of Family Physicians. The bulk of continuing medical education programs are presented through the 79 AMA-accredited academic centers, a fact of increasing concern to local, State, and national societies. If continuing education is going to be big business, the professional associations want an important piece of the action. Thus it seems that much of the control of continuing health professions education is moving away from the academic centers and into the practicing community. I will illustrate this change process with reference to my home State and relate it also to the Minnesota Area Health Education Center.

The Minnesota State Medical Association is one of 33 such associations in the country recently granted authority by the AMA to accredit local sites for continuing medical education. Seven more are in process. On May 3, my office will sponsor a 1-day orientation program for physicians representing prospective applicant groups: community hospitals, clinics, specialty societies, and voluntary health agencies. The purpose of this 1-day program is to provide a basis for the applicants to decide whether or not they wish to follow through with the application, and if so, to provide a basis for "passing muster." The Association requirement of continuing medical education as a condition of membership prompts this plan for decentralized and local control of continuing education. What the State association wants is convenient, regional access to quality education at an affordable price. I doubt that the same 40 representatives expected at that meeting will become experts at adult education in one day, despite our amazingly effective instructional program, but I have no doubt that my role will be forever changed. Instead of being the ringleader of a 40-act show, I will increasingly play a consultative and facilitative role between medical groups of various sorts and the resources of a land-grant institution which has the responsibility of helping to make its resources available to the people of the state.

Continuing education in our State in all of the health professions is supported largely through user fees. To the extent that we are successful in helping state and local societies gain control over this increasingly important aspect of their own professional destiny, our own revenues will shrink and our own illustrious existence may be threatened. Can you imagine the swell of moral virtue I feel in thwarting the survival and self-seeking instincts which may characterize some mortals as I diligently work myself out of a job? Not only does the State association want to decentralize continuing medical education, but the largest of the specialty societies, the Academy of Family Physicians, has defined a 6-year cyclic core, specifying topics, annual priorities, recommended hours, and recommended curriculum outlines. This, to some extent, limits the faculty, who like to " do their own thing" and believe that what they think is important, is what the local physicians need to learn. But the Academy of Family Physicians is pursuing their own plan very diligently, and they are urging local groups of their members to band together, to select from the annual core priorities that set of topics that they wish to study, and arrange whatever speakers they will, including the University, if they wish. Topics selected from the core are in essence pre-approved by the Academy for "prescribed credit." I am working with five such out-State programs with the Academy at the present time and could probably triple that number next year if the University had the resources to respond.

The continuing education program at Minnesota is the oldest of its kind in the country. We have the first residential center for continuing education in the United States. Another infringement on our hallowed, centralized, and heretofore franchised and protected program is the Rural Physician Associate Program (RPAP), where junior medical students spend 9 to 12 months working with preceptors around the State. That program began in 1971. It predated the AHEC and perhaps stole a bit of its thunder. It seems the State Legislature was upset with our venerable institution, dedicated as it was to the search for truth, and with secondary objectives of the institution of youth and service to the people of the State. The legislature agreed with the goals but disagreed with the priorities. Accordingly, special funds were made available from both State and Federal sources to place some 40 students in rural preceptorship arrangements. There are programs with similar goals in the fields of pharmacy and dentistry. Faculty make monthly educational visits, which include noon seminars not only for the preceptor and the student, but also for practicing physicians from the community, hospital staff, the administrator, welfare and public health workers, and others as appropriate. It is a real opportunity for interdisciplinary sharing. Many of the preceptors, and some of the students, have been unhappy with this forced integration and this semblance of team communication, but the director of the program, Dr. John Verby, is a staunch defender of the idea that family practice involves a community emphasis beyond the cozy confines and mystique of the physician's private consulting room.

This year, as an agent for AHEC, I have been able to formalize segments of AMA-and Academy of Family Physician-accredited continuing education in 13 of the 36 specific sites for this RPAP program. We are now seeking to help to bring these several regional efforts together in some coordinated fashion. AHEC has supported a regional coordinator in its St. Cloud center and will expand it this year. Instead of having faculty go to some 36 locations, we hope to have something like six or eight locations, with the faculty being more actively involved in the defined programs of continuing education which fit into both the new State Medical Association regionalized plan, the Academy of Family Physician regionalized program, and a regionalized coordination of the Rural Physician Associate program and in fulfillment of a number of the other Area Health Education Center goals. We do have the largest residency training program for family physicians in the country, and just now, partly in relation to pressures through AHEC and AHEC-stimulated thinking, that program, which has up to now been almost entirely confined to the metropolitan area, is beginning to move strongly into rotations around the State. Those rotations are anticipated to be included in such regional coordination.

Pressures for change and adaptation in the health science schools and professions have stimulated a variety of adaptive and maladaptive responses. One of the great contributions of AHEC in our state is to add a point of view through which we are able to knit together many loose ends and to reinforce adaptive change which draws community needs and resources and institutional needs and resources together in a more coherent and mutually supportive plan.

I started out by saying that the evidence for the value of continuing education is weak. Indeed, the evidence of relationship between personal health services and leading indicators of health is not strong. But the formative evaluation process, together with a relatively flexible response capability of AHEC, has in our State visibly hastened the process of adaptive change. In his thoughtful article, "Continuing Education: A Search for Improved Feedback," Steven Goldfinger lists six criteria for judging the success of continuing education, ranging from attendance at courses through improved health. He notes that the evaluation problem is in primitive stages of evolution and says that good evaluation may be more expensive than substantive programming. Indeed, extraordinary attempts at it are the least cost-effective aspect of the whole enterprise. He notes that in his experience the introduction of the nurse practitioner has done more to favorably influence the quality of physician behavior than all of the continuing education courses Harvard has offered. He expresses the view that effective continuing medical education is inescapably, simply vocational training in its strictest sense. He argues that students need to learn how to learn, in ways that will serve them for a lifetime, a weakness in most medical education. He concludes by emphasizing the importance the teacher has as a role model, a point that was just made here by Dr. Pickard. To some extent, he says, the teacher is the lesson. This begins to sound a bit like the Marshall McLuhan paradox, the medium is the message. AHEC is a medium and a message as varied in its expression as the complex patterns of strengths and needs in each State.

Reference

Goldfinger, Steven. "Continuing Education: A Search for Improved Feedback." A Paper presented at the Eastern Section, American Federation for Clinical Residents, Boston, Massachusetts, January 11, 1974.

Audience Questions and Discussion

Dr. Hartwell G. Thompson, West Virginia: Dr. Pickard, I was very interested in your description of the nurse practitioner program here in North Carolina. From your perspective of this program and the ones that are related to it, do you feel a coming together of some of these programs? I am thinking particularly of some of the jurisdictional or turf problems that may arise between physicians' assistants and nurse practitioners. I wonder where we are in the evolution of this, so we can have some type of standardization and cooperation along the lines which you intimated would and should come in the future.

Dr. C. Glenn Pickard: I think this is coming about. However, the problems are real; and I don't think they are going to be resolved in the near future. Anyway you want to look at it, there are trade guild problems that have created difficulties in this whole movement. This has to do with problems between PAs and nurse practitioners, between nurse practitioners and physicians—you name it and there has been a fight, at one level or another, between these various groups. Two or three things are, I think, encouraging. The pediatric nurse practitioner rift with the American Academy of Pediatricians has been resolved. They recently came out with a position paper that, as I view it, is a major step forward in terms of the basic difficulties between organized nursing and organized medicine. Many of the PA programs are accepting increasing numbers of nurses now into what were previously termed PA programs. Nurses are not entirely happy with it, but I think that in those PA programs that moving more into the direction of primary care specialization they are acknowledging that nurses trained somewhat in the same way as the former nurse practitioners probably can perform very well, Other PA programs tend to be moving in the direction of a second track medical school, so I think there is still a divergence there. There are those who state categorically that some of the older PA programs which have acquired increased academic excellence and increased curriculum load now look very much like medical schools. Indeed, graduates of some of these programs have challenged the National Board of Medical Examiners to be given the right to take the test and be licensed as a physician as a result of this. So, I think there is still a divergence within the PA movement, a convergence at one level and a further divergence at another. With regard to salaries, many states, such as ours, have had to face up to the fact that the PAs were there firstest with the mostest, and got the most money. Many State civil service systems, such as ours, have set PA salaries at a quite high level. There has now been a reexamination of this in our State, and in general the PA salaries are coming down and the nurse practitioner salaries are going up. So, in terms of acknowledging that the role and function, from a medical point of view and the reimbursement point of view, is quite similar, there is again a coming together. I think there is some hope that out of this maelstrom of confusing labels and confusing programs, we are beginning to get some concurrence around basic program issues, but it is far from resolved.

Dr. William Wiese: I think one of the ways of developing certifiability, in addition to the ones outlined by Dr. Pickard in nurse practitioner programs, is using a standardized curriculum and standardized tests. One of the ways we have done this in New Mexico is to exchange faculty. The tests generally measure knowledge, content, and cognitive abilities. I think one of the real questions and problems is how you measure performance abilities, and criteria are difficult. The ways that it is done involve direct observation. We have found that if we exchange our faculties we can get a better feel for the standardization of the programs and the performance of the trainees. Basically, we take faculty from one program and have them personally evaluate the trainee in another program. I think this has turned out to be quite a good way. It is very satisfactory, helps in the communication between programs, and helps in the development of mutual respect for the several programs.

Mr. Ismael Bob Morales, Texas: Dr. Fenderson, in your comments pertaining to the preceptorship for 6 to 9 months at the undergraduate level, what has been the experience, to date, in terms of these individuals going into a practice in a rural area? And secondly, are you also carrying out, or do you intend to carry out, a rural residency program for a period of possibly 6 to 9 months for family practitioners?

Dr. Douglas A. Fenderson: With regard to the first question, return to rural areas: of course it is early, but the evidence to date is strongly in favor of these people returning, many of them to the sites where they had their 6 to 9 months' preceptorship. To some extent, of course, this is a preselection phenomenon. It is also noted, however, that many students lose their enthusiasm for primary care and, thus, for care in outlying areas, in medical school where the identification models are all in the direction of specialty medicine and urban practice. And so, what it seems to do is to preserve some of the early commitments in this direction. It has also been noted that many students who are in brief preceptorships of, say, 6 or 8 weeks, tend to learn the disadvantages of rural and small town practice. They are generally enthusiastic about the richness of the experience but very discouraged about the conditions under which their preceptors practice. However, those who stay out for 9 to 12 months get involved deeply into the community and understand something more of the advantages of that style of practice. It seems to have a much more salutory effect. With regard to rural residency programs, very little progress has been made, and it is only in the past year that any serious attempt at developing rural residency training has been even actively considered by the faculty of the medical school. But it is beginning to take place now.

Dr. Thompson: I would like to ask a question of my colleague and friend, Don Arnwine. In the community hospital, which has a significant commitment to allied health education, as we do at the Charleston Medical Center, when a program for educating medical students and expanding house staff comes in, do you visualize, in this situation, that you eventually run out of resources? There is just so much space and so many dollars in the system. I would be interested in hearing your speculation as to how you try to reach a reach a reasonable balance in this equation so that the essential characteristics of the community hospital are not lost and so that we don't, in an attempt to solve one problem, back away from the commitment to another. I think we all feel this is quite significant, as it has been in the past, and may have greater significance in the future.

Mr. Don Arnwine: Speaking to the economics of the proposition first, the amount that a community hospital can afford to invest in educational programs, of all types, there are no standards. I suppose that you can look at the situation in some parts of the country where community hospital organizations, such as ours, are spending maybe 8 percent or 10 percent of their total resources on educational programs. In those situations this has usually been built up over a long period of years and after long involvement with a university. In our particular situation, we have rather arbitrarily assigned 5 percent of our resources to educational programs. Now we hope to try to stretch those in this way and, I might add, they are not stretching very well at the present time. In the area of allied health education, we are attempting to move as many of our allied health educational programs into academic institutions as we possibly can. Every one of them that has sufficient strength in the curriculum to deserve academic credit we hope to be able to move into one of the local colleges or, in some instances, maybe colleges or universities some distance from Charleston. This accomplishes several things. Obviously, first of all, it gives the student more horizontal and vertical mobility within the health care field. We are less apt to lose our brighter students. Secondly, presumably, an educational institution can do a better job of educating than can a service institution. And, thirdly, there is the economic advantage. It is our point of view that society has, in large measure, ignored the educational needs in the health care field. They are not supporting them to the same extent that they are in other industries, and although there is a lot of noise in the system about the amount of money they are putting into them, the fact remains that hospitals have had to absorb, within their patient per diem, a lot of the educational costs. So, to the extent that these can be moved, this will help to extend those funds. Let me cite one example. Last year, one of our hospitals operated a diploma nursing program. The loss was $330,000. An agreement was made with a local college to support their associate degree nursing program and to underwrite their losses. Last year our share of those losses was $30,000. In some instances, we have to fund those programs to make it possible, but I think through that kind of strategy we can help stretch the dollars. We are reaching a point where we are going to have to make some judgments about priorities in increasing the size of the house staff, from the standpoint of maintaining our character as a community hospital, and also from the standpoint of how much can be absorbed in the sick fund, so to speak.

Dr. Eugene S. Mayer, North Carolina: I have a question for Dr. Pickard, and it relates to a comment that was made this morning by the practitioner who said that his concern was really not money as much as loneliness. I think we all know that one of the problems of the family practitioner in small communities, and I expect it will also be the problem of nurse practitioners in the small communities, is one of professional isolation. I think that one of the things most of us in the room have said, at one time or another, is that AHEC is designed in part, to deal with that elusive thing called "the professional environment." I would like to ask Dr. Pickard if he sees anything in the way of support for the practicing nurse practitioner from other health professionals that is going to come from the existence of Area Health Education Centers.

Dr. Pickard: I don't think there is any question, Gene. This is our firm intent. I think part of our strategy in developing the family nurse practitioner program has been to attempt to address the issue of loneliness and isolation. This is one of the reasons why we insist upon a nurse practitioner having a sponsoring physician before she comes into the program. We emphasize throughout the program that this is a team affair. This is usually seen in the context that this has to be done to assure that medical practice is carried out in a responsible fashion, and certainly that is not the least of the issues as to why the nurse practitioner and the physician have to have this defined relationship. There also is the key point that many of these nurse practitioners have provided for the physician with whom they work, and vice versa, a mutually supportive relationship, whereas before the physician has been operating in relative isolation. Now he has someone in his office who is a part of a bigger system. Many of the practitioners who have come to us, identified by the nurse who wants to get into the program, or vice versa, are physicians who have been practicing in relative isolation, who have had no real relationship with the university other than an occasional blessing through our previously rather traditional continuing education programs— which is 2 hours of education, once a year. By virtue of having a nurse practitioner, who has been trained in a university program and who maintains her contacts with that program, whether it be through the AHEC center or through the program in Chapel Hill, we hope very much to encourage and to continue to develop this feeling of belonging to a bigger picture, wherein your problems can be solved in some way, whether it is a referral problem or whether it is an educational problem. I think we have seen a number of examples where the nurse has clearly provided the physician with this access, either for solution of clinical problems, educational problems, or what have you. Clearly, this is, again, part of our long term strategy.

Dr. Wiese: I would like to ask the gentleman from North Dakota, who raised the question in the beginning, to validate, dispute, or otherwise comment on that answer.

Dr. Keith G. Foster, North Dakota: I have trained and do have a nurse practitioner working with me, and I think that is probably so. I do have another question I want to ask Dr. Pickard. Since you are leaders in this particular field, what have you done, so far, in qualitatively assessing patient acceptance of the nurse practitioner?

Dr. Pickard: In terms of formal studies, there have been two in the state, but, as you know, they are just extraordinarily difficult to get at. One of the programs was west of Asheville, which is the only major source of care in a large part of a very rural county. They sent out a questionnaire and said: "Do you like your nurse practitioner?" And the obvious answer is, "Yes." You know, it's the only show in town, and who is going to send in a questionnaire saying, "No, I can't stand her." Unfortunately, that is the state of the art when you try to get at this rather ephemeral question of how well are they accepted. It is not much better, I think, to do these kinds of studies than to accept the anecdotal evidence we have, and the anecdotal evidence is that they are quite well accepted, in all strata of society. A large number of the nurses we have trained have gone into programs affiliated with minority groups, disadvantaged groups, etc. And, I think there again it is no surprise, if you put in a program which is specifically addressed to a minority group that cannot afford care elsewhere, they are apt to like it very much. There are, now, probably 20 percent to 25 percent of our graduates who have gone into affiliation with primary care physicians in private practice, and they have found extremely good acceptance there. Now this is certainly not universal; in any practice, there are going to be those patients who say, "Don't send me to your nurse practitioner; I pay to see you, and I want to see you and you alone."

Dr. Foster: How about information in relation to the physician extender who is not a nurse practitioner? Do you have any comparison there?

Dr. Pickard: No comparative data. Anecdotally, you know, the numbers are so small that my impression is that it is largely a matter of individuals.

Dr. Henry S. Uhl, North Carolina: I would like to comment on the question that was raised by our colleague from North Dakota. It was brought to my attention, just a week ago, in talking to Dr. Juilian Keith, who is now the Chairman of the Department of Family Medicine at Bowman Grey School of Medicine, and who practiced as a family physician in an isolated rural community in eastern North Carolina for some 10 years. He told me that he did not feel, always, so professionally isolated or lonely. What he found, and why he left, was the lack of adequate social, educational, and cultural resources in that region for his wife and his family. Now, I realize that this is not a function of AHECs, to solve the social, cultural, and economic problems of society in the United States, but what I fear is that these factors may be more determinate on the deployment of supporting professional personnel than anything we can do through upgrading our educational resources and locating them away from university centers.

Dr. Wiese: I would like to respond briefly to those remarks. Perhaps the answer to that problem, which I think most of us do recognize, will be addressed in part by re-examining some of the admissions policies into the various professional training programs. Secondly, the same observations can be applied not only to the physicians and professionals who are going to be delivering services, and do deliver services in rural, isolated areas, but also to the educators in the AHECs themselves. Mention was made of the need to use full-time faculty in many of the situations, and this becomes a recruitment problem in and of itself. It certainly is relevant, and I don't think it is a question we can ignore.

Dr. Charles Andrews, West Virginia: I have a comment about precetorships, and then would like to ask Dr. Fenderson a question. The University of Kansas Medical Center, since at least 1945, has had a preceptor program in which students were sent out to western Kansas in the rural areas. The figures I saw, I think in the past year, indicate that about 25 percent of the graduates of the University of Kansas Medical Center have practiced in Kansas, and most of them are still in Kansas City, Wichita, etc. It is true that they spent the 6 to 8 weeks time period that Dr. Fenderson mentioned, and this may be the reason they did not stay out in western Kansas. In West Virginia, with all due deference to my friends from Charleston, I think that by any standards you would agree that is a rural area. Ninety-eight percent of our medical students come from West Virginia, and 75 percent of them come from the hollows—or however you want to describe it. They spent 18 to 20 years becoming familiar with the culture and this type of thing, and I do not see how another 6 or 8 months will acquaint them with whether the rural life can be better. So, I have difficulty seeing how a preceptor will help us with this problem. I wondered, in Minnesota, do you choose people from Minneapolis to go out into the rural areas, or how do you select them? I would have great difficulty with the trade-off in the junior curriculum, versus a preceptorship at that level.

Dr. Fenderson: There have been a number of attempts, through financial incentives or experience or pre-selection, to get people to go to areas of need, and there many factors involved in this. The topic is worthly of serious discussion in its own right. In fact, I gave a paper on that subject last week in another meeting. With regard to the program in Minnesota, the students are self-selected, and the bulk of them going into a rural preceptorship do come from relatively smaller towns. As you know, many students when they come to medical school indicate general family practice or primary practice as their orientation. You also know that that kind of commitment tends to wane very substantially as they come under the sustained influence of specialty practice and the particular characteristics of the university teaching hospitals. It becomes increasingly difficult for these people to maintain their commitments to the kind of practice they had in mind, based on their twenty years of experience in those smaller towns. What seems to be happening, in my view, is that we are maintaining that enthusiasm. We are making practice options that are not readily available or not readily discernible in the metropolitan areas much more apparent. The options are much more real, and the experience of returning to the rural area—not so much as a citizen, in general, but rather as a practicing physician—seems more feasible. It is really too early to examine this kind of thing. The evidence, however, on various attempts at loan forgiveness, with the notable exception of Kentucky, has been an unmitigated disaster. The students buy their way out; they simply don't go back. One of my former associates said the problem is not so much the maldistribution of medical manpower; it is the maldistribution of the population. Who wants to live in a town without a doctor, or who wants to live in an economically marginal area—or an area that does not have educational, social, cultural, recreational advantages? So, we should declare many of those areas nonoperative and move them all to urban trade centers.

Panel 2

Interdisciplinary Program Development

Moderator: Dr. Edith Leyasmeyer
Project Director
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Panelists: Ms. Bernadine M. Feldman
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Dr. Rodger C. Kollmorgen
Department of Psychiatry
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Dr. Richard J. Schimmel
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Introduction

Dr. Edith Leyasmeyer

A variety of terms are used to describe the bringing together of different disciplines for a common purpose, such as "interdisciplinary," "crossdisciplinary," "transdisciplinary," "multidisciplinary," and scores of others. Each of these has a different shade of meaning, a different implication, and a different application. For the sake of simplicity, I will simply use the term "interdisciplinary" and you can make your own interpretations.

Interdisciplinary health education is now being hailed as the critical means for providing better health care to people. Some contend that many of our health care delivery problems today are directly related to a lack of understanding and appreciation for the actual and potential contributions that each of the different disciplines can make towards patient care. These arguments are convincing, but is interdisciplinary education, like treating the whole person or like providing for continuity of care, an idea more likely to be extolled than actually accomplished and implemented? The research studies that have been conducted are case-by-case studies which look at how team members felt, how they interreacted, how they interrelated, and very little substantive research has been done on the end product. How indeed has interdisciplinary education affected that outcome—patient care and the quality of care? Many of these questions still need to be answered.

Basic to our discussion this afternoon of interdisciplinary care is the consideration that interdisciplinary activities are cooperative activities. In our society, the various disciplines typically have not had a collegial relationship. They have been trained very separately, and they are all striving for professionalization. Professionalization leads to intragroup relationships, intragroup status-seeking, and much less regard and need for relating to other relevant disciplines. Furthermore, our educational system has really not been very supportive of effective team functioning. Much of our activity in education has really been aimed at the maintenance of the integrity of each individual profession and discipline. We have been focusing on specialization, where each discipline narrows more and more its area of expertise and interest and thereby erodes the common ground for understanding and communication. Thus barriers become established and strengthened.

The reason for a focus on interdisciplinary education is that it will supposedly lead to team functioning and team care of patients. As we all known, the health care teams are composed of disciplines from a variety of backgrounds. Some, such as the nurse aides, have little education beyond high school; some have 4 or 5 years after high school: and some have 10 or more years after college. Putting these various disciplines together in a mix and expecting them instantly to relate to each other, to communicate, to be interdependent, and to collaborate, is really a task of the highest magnitude. Yet that really is our expectation on the hospital wards and in the clinics. With very little preparation toward this goal, we do expect the teams to function effectively. Yet the teams, besides having to work out their own problems of relationships, of interdependence, of accepting one another's contributions, also have to interrelate with and relate to the patient system, which is another area on which we have not focused much attention. The patient and his family come to us, as health care providers, with a variety of needs and expectations. They have complex problems that are physical, emotional, psycho-social, and economic. They look to the health care team, the health care deliverers, for some sort of solution for all of these problems, which are indeed most interrelated. They are looking to us for treatment of disease, for maintenance of health, and for improvement of living conditions, which certainly affect the status of health; they are looking to us for public education, and for action to change their situation by some social means.

When we reflect upon the health care team and look at its specialty composition, one very obvious question is which member of the health care team can focus effectively on more than one, at most two, of these areas and do a good job? The health care team must concentrate on the diagnosis and treatment of the medical problem, and they must focus on the diagnosis and treatment of the socio-economic problem, such as some maintenance of a higher status of living for the patients. Therefore it

Panel #2: (from left to right) Dr. Leyasmeyer, moderator, and panelists: Ms. Feldman, Dr. Noback, Dr. Schimmel, and Dr. Kollmorgan.

becomes very obvious that the team members have to function as an integrated, interdependent team who rely on each other heavily and are able to use each other's resources and capabilities to the very fullest.

As I said earlier, we have just begun to address these questions and issues in our health sciences curricula in our health sciences schools. At the most simplistic level, we have introduced a variety of behavioral science courses into our curricula, which, of course, broaden the perspectives, horizons and understanding of the health sciences students. We have opened up courses to students from more than one discipline, with the expectation that if the nursing student rubs shoulders with a medical student, some results will be there that are beneficial. We have placed students from different disciplines in the same patient ward with the expectation that if they see each other functioning even independently, some benefit will accrue. To date, the benefits have been very minimal. A better approach, of course, is to assign students to some joint project, such as providing comprehensive care to a family, whereby students are educated and guided to learn together to solve the ensuing problems.

One of the basic tenets of the Area Health Education Center is to provide the kind of education I have just been describing, and to produce health manpower who can meet the needs of our population and assist in providing health care that is available to all of the people in the areas that we serve. Interdisciplinary education is a very critical component of our overall attempt. The panel this afternoon will attempt to address the interdisciplinary question from a variety of perspectives. We will take a look at core curriculum concepts, how they work and how they can be implemented and applied. We will be looking at innovative interdisciplinary team training and how that works. We will also be discussing an intradisciplinary program in nursing. Besides our general interdisciplinary focus, we should also look at what happens within a particular discipline. In a discipline such as nursing, there are a variety of levels of individuals who need to relate to one another, need to have a change for career mobility and thus be able to move from level to level with a greater deal of freedom. When we are talking about the health care team, we need to be able to share expertise, knowledge and capabilities, both horizontally and vertically, including the lower level, as well as the higher level professions. The Area Health Education Centers emphasize interdisciplinary education because we believe that it will aid in overcoming existing barriers and bring about functional teamwork.

Curriculum Articulation in Nursing

Ms. Bernadine M. Feldman

I represent several very dedicated nursing faculty members of the University of Minnesota School of Nursing, St. Benedict's College Department of Nursing, and a broad spectrum of nursing personnel who function in various capacities throughout the University of Minnesota AHEC target area of central Minnesota. My function as nurse liaison of the U of M AHEC staff is to coordinate and facilitate several aspects of the nursing component included in the Minnesota AHEC project.

The concept of curriculum articulation, which is the title of this particular presentation, appears to be a relatively innocent phrase which reflects a seemingly logical and rational approach to the educational process involved in preparing personnel who will perform different but related functions within the health care field. However, as one examines relevant literature and discusses the concept with knowledgeable persons within the profession, one rapidly becomes aware of the ongoing heated debate involving "curriculum articulation" as well as other related concepts. Although much of what I will say concerning these concepts is related specifically to nursing, this discussion is also true for the other disciplines in the health field. In this brief period I would like to identify, define, or clarify some related concepts, briefly describe a few of the major issues relevant to "curriculum articulation," and also describe a couple of curriculum approaches which incorporate this concept. Within this frame of reference I would then like to describe the U of M AHEC nursing components. Finally, if time allows, I would like to suggest the interdisciplinary applications of some of these educational concepts and approaches.

The glossary of terms related to curriculum articulation includes among others the following:

"Curriculum articulation," is a characteristic of a program of learning experiences. "Articulation" implies the possibility of building directly upon the learning experiences of one component of the nursing education system as a means of more efficiently completing a subsequent component of the nursing education system.

"Career mobility" is the recognition of an individual's previously acquired skills and life experiences through provision of flexible curriculum patterns whereby an individual may enter at his level of achievement and progress according to his own ability. There are two ways in which this can go. "Vertical career mobility" is the advancement of persons through different levels within an occupation through challenge exams, career ladder, career lattice, open, or accelerated curricula. "Horizontal career mobility," is the advancement of persons within a field or the change of field through job performance and continuing education.

A "lattice curriculum" is one which incorporates a framework or structure upon which any person may grow, and usually refers to a core of knowledge or skills required of any person in a particular field despite level of educational preparation. This approach is intended to provide a structure which allows for either vertical or horizontal mobility.

A "ladder curriculum," as opposed to a lattice, is one which refers to the progression of a student through various levels of an occupation or profession. In nursing, it usually refers to the progression of a student through a practical nursing program into an associate degree, and finally to a baccalaureate nursing program.

A curriculum that exemplifies a career mobility concept and the concept of articulation is described as an "open curriculum." An open curriculum in nursing education is a system which takes into account the different purposes of various kinds of programs but recognizes common areas of achievement. Such a system provides students mobility in the light of individual ability, changing career goals, and changing aspirations. It also requires clear delineation of the achievement expectations of nursing programs from practical nursing through graduate education. It recognizes the possibility of mobility from other health-related fields. It is an interrelated system of achievement in nursing education with open doors rather than quantitative serial steps. (Taken from the National League of Nursing statement of February 1970.)

A "core curriculum" is a set of courses which are required for all students in a similar field.

With these terms in mind I would like to describe for you some of the issues which comprise the present debate concerning articulation, career mobility, ladder, lattice and open curriculums. In this brief time, I only hope to raise the issues to provide a context for our program at the University of Minnesota, but also to stimulate thought and discussion on the part of you, the participants. Some of these issues which are related to curriculum articulation are based on the concepts I have just presented. First of all there is the debate about the hierarchy of personnel in health professions. Those who subscribe to a ladder curriculum approach tend to subscribe to a hierarchy of personnel in the profession. These hierarchies can be more or less defined. In some instances they see the hierarchy of the health professions as a pyramid, one huge pyramid. At the very lowest point are the aides and the orderlies and at the very highest point, at the apex of this pyramid, are the physicians. Others feel that there are *pyramids according to occupational* groups, for example nursing, where the doctoral in nursing is at the apex and the nursing assistant is at the lowest point. Those who subscribe to a ladder concept would say that the student ought to be able to enter and exit this pyramid at any step without loss of time, and with great efficiency, moving from one step to the next on this ladder of the pyramid. Not all agree with that idea.

Another issue related to curriculum articulation is that of core curriculum for all health-related personnel. Sister Ann Joachim in her 1972 article discusses the fact that many of the ladder and lattice curricula have as their focal points a core curriculum, which means that all persons in the health field would have a core of courses that would be essential to their programs. Sister Joachim disagrees with this concept because she feels there are some courses that are more essential to one occupation than another. She takes chemistry as an example: this may be a very essential component for a medical laboratory technician but is of less importance to the medical records person. (1972)

A third issue is differentiation of curriculum leading to technical level and professional level health care personnel. Are professional level health care personnel essentially different from technical level personnel or are they simply more of the same? This issue is related to the differentiation of competencies and performance of nursing personnel. Many of us who are in nursing or in the periphery of nursing have heard people in the hospital setting say that nurse educators talk about LPNs, aides, RNs, Associates of Arts, BAs, MAs, and doctorates, but in the real world of work they all do the same thing. Just to see what kind of a reaction I would get, I posed this statement to one of the University of Minnesota faculty persons who has been working for the past year and a half on identifying competencies for entry level behaviors, of the graduate nursing program. She did not get riled up at all and she did not throw me out of the office. She just looked at me and said, "Are you sure that's the real world? Maybe the real world is reflected by the educator who sees the differences and states very strongly what these differences are."

Mildred Montag, in her 1971 article argues against the ladder concept; her statements are relevant to both the differentiation of curriculum leading to these various personnel categories, as well as the differentiation of competencies. In her opinion, the ladder concept seems to deny the integrity of professions and the varying kinds of practice within an occupation. She asks, "Is there nothing in medicine which distinguishes it from the other health professions and lends uniqueness and specificity to medical education?" (1971, p. 729) Her biggest argument against the ladder concept is in the curriculum itself. "It is my contention," she states, "that to develop a curriculum one must have a picture of what kind of person one is trying to prepare. With this picture clear, then, all that goes into the curriculum is geared to producing this individual." (1971, p. 729)

Several other issues related to curriculum articulation are life experience credits, or blanket credits. This is a very essential component of the various curricular approaches I have mentioned. Should a person be given blanket credit simply because he has engaged in certain types of activities which are seen as contributing to some outcome of an educational program?

Another issue is length of time and content repetition. Many of those who believe or subscribe to ladder and lattice programs do so because they feel it will contribute to reduced repetition, and thus greater efficiency in programs pursued by students.

The curriculum approaches which incorporate articulation concepts—the ladder, the lattice, accelerated, and open curricula—are more feasible today because faculties of many schools of nursing or departments of nursing have been developing certain facilitators of articulation curriculum. For example, with the availability of challenge exams, it is now possible for the student to exempt himself from a course which is a required part of the program sequence. The challenge exam can also be used as a means of gaining credit for required coursework when the student feels he already possesses the requisite knowledge. Other uses of challenge exams consist of proficiency and placement assessment.

Another facilitator of articulation curriculum is that of independent learning modules, which allow students to meet the requirements of certain program courses. Learning modules provide for independent and individually-paced learning.

A third facilitator is that of competency-based curriculum, which allows for better assessment of persons seeking entrance to the program, progress through the program, as well as evalution of the content of the program.

A final facilitator is that of identifying entrance and exit competencies of nursing programs and their graduates. This competency identification should help to answer the questions of how graduates of nursing education systems differ in terms of task and skill competencies, competencies in judgment and decision-making, as well as synthesis and application of their knowledge base.

Keeping these issues as background, I think the most appropriate term I can use to describe the University of Minnesota AHEC nursing components is "eclectic." We subscribe to the concept of career mobility, both vertical and horizontal. Our efforts in terms of vertical mobility consist of the following five components. The first is the presence of an academic counselor in the AHEC target area, that of Central Minnesota. This counselor is a masters-prepared nurse who provides academic counseling to all interested LPNs, AD graduates, RNs from diploma programs, and nurses with their baccalaureate as well as master's level preparation. This person is located in the Central Minnesota area for the purpose of contacting individual nurses who have indicated an interest in defining their career goals and also helping to provide for expedient pursuit of those goals. Many times nurses away from the University campus see programs as one hodgepodge of red tape, sitting around, standing in line, not knowing what they should be doing or what they ought not to be doing. Many of them engage in taking courses hoping that credit will apply to something, because they heard that it did from someone else. There is a lot of misinformation around. Our hope, by utilizing an academic counselor, is to ensure that nurses have accurate information and not spend their time pursuing courses of study that will not contribute to their career goals. A second reason for the counselor's presence is to ensure that when the programs are available in our region we will also have students available.

A second component of our nursing effort is planning and coordinating prerequisite course offerings in the regional AHEC areas. Our academic counselor, as well as personnel and faculty from the University of Minnesota School of Nursing, St. Benedict's College and St. Cloud State College, are working together to identify the prerequisites of the various curricula and what interchange is possible. I am sure you are aware that some institutions do not recognize credit for courses taken at other institutions. We tried to hash this out prior to offering a course so that the credits earned would be accepted by all the involved institutions.

A third component is the coordination and support of planning and development phases required for offering the BSN accelerated program in the regional AHEC area. A fourth component contributing to this accelerated BSN Program, is the ongoing development of course content in the form of independent learning modules.

A final effort in terms of vertical mobility relates to the coordination and development of an external graduate nursing program in the regional AHEC area. We at Minnesota are also looking to the State for funding, particularly of the External Master's Degree Program and the additional funds required to locate the accelerated BSN Program for RNs in the rural area. It moves me to say that happiness is 80 percent cost sharing on the BSN contract.

Let me conclude by suggesting that much of what I have said about nursing also applies to other disciplines within the health field. The identification of competencies of graduates of technical and professional nursing programs should help to clarify the intra-occupational functions and relationships and the interdisciplinary relationships as well.

A second outcome of this work effort by nurses to clarify the educational system as well as the routes to access this system, has been suggested by Thelma Engels in her November 1971 article in *Nursing Outlook*. She states, "Furthermore I believe we might consider breaking down some of the walls of cloistered disciplines. For example, why wouldn't school teachers benefit from a minor in pediatric nursing, social workers from a minor in psychiatric nursing, or a medical student from selected courses in nursing?" (1971, p. 730) If this be treason, so be it!

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Interdisciplinary Education and the Health Care Team Concept

Dr. Rodger C. Kollmorgen

When University of Minnesota graduate students in the various health professions find it desirable to have a field placement in the rural interdisciplinary setting, there is a strong possibility that they may spend some time in a small, seemingly inauspicious mental health center in Braham, Minnesota (population 740 plus mosquitoes and snow geese) some 60 miles north of the University. During the last 2 years, students from clinical psychology, nursing, alcohol and chemical dependency, medicine, social work, and pharmacy have received field placements at Braham. For the most part, these have been unique and worthwhile educational experiences.

I am inherently suspicious of the validity of testimonial evidence, and I will not dwell upon it except to say that, when a graduating medical student tells you that his 6 weeks at the Five County Human Development Program was the highlight of his medical school experience, and he feels that he has gained a supernumerary family to boot, one gets the feeling in his bones that this particular mental health center, tucked away in what was formerly an electric utilities company garage, has something going for it in terms of interdisciplinary team function and the capacity to educate students.

The Five County Human Development Program is 10 years old and it serves, as you've probably already divined from its name, five rural counties in east Central Minnesota, two of which are designated as fiscally distressed by the Governor and all five of which are designated as psychologically depressed by myself. The population is 80,000, which lives on approximately 3,000 square miles of sandy, loamy, overworked farmland settled originally by Scandinavians who had an unparalleled capacity and proclivity for masochistic suffering and/or just plain bad luck. If they had gone only 100 miles further to the south and the west, they would have been in some of the richest and most productive land in the Midwest.

Inasmuch as the task has befallen me to try to coordinate this interdisciplinary experience at Braham, I have attempted to outline what I regard as necessary, albeit not sufficient, characteristics of the well-functioning interdisciplinary mental health team and its relationship to students. I submit these guidelines as basic requirements to good interdisciplinary teaching teams.

Before you can teach something, you must have something to teach. The first touchstone is competence. Presumably the psychiatrist is in command of a certain amount of didactic psychiatric knowledge and is competent in the practice of clinical psychiatry. The psychologist, the social worker, the psychiatric nurse, and so forth are each well educated in their respective fields and competent in the practice of their professions. Each is quite capable, presumably, of performing his own profession *in vacuo* if necessary.

Second, it is necessary that each member of the team believes in the value of his own profession, believes that his own profession brings a certain knowledge, a certain view, a certain gestalt to the fore which enables him to make unique contributions to the team effort and to the final product, without which contributions the final product would be diminished in quality and different in character.

Third, each professional on the team must have comfortably resolved his own "Edifice Complex," if you will. That is, he must have disabused himself of the emotional persuasion that all knowledge re-sides, and all goodness reposes, within the womb of the university. Once he passes out of the city limits he does not lose his competence, nor does his brain suddenly turn to scrambled eggs. Or, to put it another way, he must be willing to in part give up his own sentient group of other psychiatrists, other psychologists, as the case may be, and to cathect the interdisciplinary team as his new sentient group, the group with which he becomes instrumentally identified and from which he receives his strokes or his M & Ms.

Fourth, the professionals must share a conviction or a belief in the common task of the group, a belief that it is laudable and worthwhile and that their common goals are being met and that they are effecting some change in the world. Again, testimonials are capricious and fickle; at best unreliable and at worst, they cut both ways. A considerable amount of neurotic energy can be expended in whomping up the positive, reinforcing ones and in some way denying and repressing the punishing ones. But, solid, objective, publicly verifiable criteria of success or failure obviates the necessity of huddling and adopting a cultish, up-against-the-world mentality. I submit that in this era of energy conservation nothing solidifies an interdisciplinary group like hard-nosed criteria indicating its effectiveness in accomplishing its goals. Especially in the mental health fields, where impact is frequently intangible, goals are frequently long range, and gratification is seemingly forever deferred, the quest for effectiveness criteria is a necessary and worthwhile endeavor.

Finally, the interdisciplinary group must have a mechanism by which internal corrections can be effected. Just as surely as change and growth occur *within* individuals, so do they occur *between* individuals within interdisciplinary teams. No system is perfect. Even in the most effective team personal feelings do become hurt, professional turfs become threatened, and power balances become shifted. The problem is *not* how best to suppress and sweep such problems under the carpet, but rather how to get them into consciousness and out onto the table where they may be dealt with. Germane to this process within the interdisciplinary team are persons who are comfortable not only as professionals, as I have indicated above, but with themselves as worthwhile, effective individuals who are capable of error but who are also capable of forgiveness and capable of change.

I have outlined the essential ingredients for a successful interdisciplinary team as I see it. Let me give the gestalt by which this team engages the student. We regard the student-mentor relationship as a contractual relationship, actually a quadripartite contract between the student, the Five County Human Development Program, AHEC, and the student's university department. Close liaison between the Five County Human Development Program and the curriculum advisors in the various departments in the University is maintained. By the time the Program is aware of a prospective student, he and his curriculum advisor have possibly already determined if a tour or placement in Braham is in keeping with the student's curriculum goals. AHEC may then give its blessing. The student then makes a trip to Braham and meets with the staff, and together they discuss the nature of the mental health center's operation as well as the student's own educational goals. Together the student and the staff determine whether or not these goals can be met or approximated, and they may then negotiate in terms of a program tailor-made for that student, as well as a time commitment satisfactory for all concerned. It becomes evident, then, that little is taken for granted. The staff is willing to make a substantial investment in the student but very clearly wants something in return in the form of time, energy, and emotional commitment. After such a preliminary negotiating session, some students and the Five County staff have determined that they really did not have the basis for mutual contract, or that the experience really would not be in keeping with the student's own goals or expectations—no problem, no hurt feelings, better to find it out sooner than later. Those students who do decide to spend time at the center then make their affirmative decisions from a standpoint of information and mutual expectations. It is more than conceivable that starting out on the right foot is the biggest step to making field placement at the Five County Human Development Program a very meaningful educational as well as personal experience.

Once the student begins his field placement, he is assigned a coordinator on the staff and his individual program is firmed up. Perhaps it will entail a great deal of community organization and indirect services. Perhaps it will emphasize family intervention over a several months' period. Perhaps, because of an intensive but attenuated time commitment (previously agreed up, mind you) major emphasis might be placed upon diagnosis and evaluation.

The student's coordinator may or may not be someone in his own discipline. The old dictum that a student is best taught by a member of the profession to which he aspires is now being challenged, and so far successfully. Inasmuch as all staff members hold clinical appointments to the University, no serious administrative problems have arisen as yet. Our rationale has been that, if this is to be an interdisciplinary experience, let it be so indeed. And after all, how often does a nurse get to tell a young doctor a thing or two?

The student spends considerable time with each member of the team. If the community coordinator is going to visit a school, the student goes along. If the psychiatrist is going to a local hospital for bedside consultation, so goes the student. If the psychologist is going up to the Indian reservation to do some psychological screening or testing, guess who rides with him. Every patient is regarded as a teaching case. The student is free to be scheduled in on any session. The student is regarded as a junior member of the staff. He presents patients, he is seen with the staff members in the staff meeting, he b.s.'s with the staff at coffee, and he is present when the staff is attempting to work through their own interpersonal problems. He is present when local county politics are discussed, and his tender student ears may just hear what a penurious old devil one of the county commissioners is, who is against a pay raise for the staff. In short, the student learns how an interdisciplinary team works by becoming part of that interdisciplinary team in fact. Whether or not he ever chooses to return to such a setting, he will hopefully look back on the experience and declare that, if nothing else, if not relevant after all, if not persuasive, if not useful, it *was* a genuine experience of professional, educational, and personal impact which will have spin-off value in whatever future context he finds himself.

Innovations in Basic Sciences Curriculum

Dr. Richard J. Schimmel

Governor's Planning Region 3-B is a 16-county area in East-Central Illinois and one of four regions in Illinois involved in the Area Health Education System project. Region 3-B has a population of approximately 800,000. There are 28 hospitals, with 4,000 beds, and there is a total of eight higher education institutions in the region, either 2-year or 4-year.

The AHES contract has provided the opportunity to develop needed allied health and nursing programs in conjunction with the existing School of Basic Medical Sciences and the developing School of Clinical Medicine in Urbana-Champaign. Obviously, the development of full professional programs in allied health and nursing requires basic medical sciences as the foundation for professional competence. In order to provide the basic science content necessary for the allied health and nursing programs, we are attempting to utilize the 1-year basic medical science program which was developed as the first year of the 4-year M.D. program in the College of Medicine. The existing basic medical science program was established by teams of basic medical science faculty and practicing physicians working together to identify basic science concepts content areas necessary for medical practice.

The program is a self-paced, self-directed curriculum that is comprised of eleven basic science disciplines: anatomy, biochemistry, microbiology, immunology, physiology, pharmacology, pathology, histology, neuroanatomy and neurophysiology, genetics, and behavioral sciences. Each discipline is broken down into independent learning units which are incorporated into ten clinical problems. Clinical problems, such as inflammation, peptic ulcer and diabetes, are an attempt to directly relate basic medical science to pathophysiology. The curriculum incorporates over 1,500 specific learning objectives, multiple learning experiences for each learning unit, and multiple prescriptive and diagnostic evaluation instruments.

There are 300 units or learning packages in the curriculum. Each learning unit has been developed with a standardized format which includes:

1. A subject matter description for the unit's content;
2. A list of prerequisites or prior learning units essential for the learning of the unit;
3. The general and specific objectives for the unit;
4. A list of key words;
5. A pretest;
6. A listing of specific reading assignments in textbooks, reference books, other printed matter, laboratory experiences, and a listing of all software materials (slides, tapes, etc.) related to the unit;
7. A posttest for the student to assess his performance.

For each unit, an additional set of questions is reserved until after the student has completed a given clinical problem. At that time, the student takes a test which is representative of all the basic medical science objectives for that particular clinical problem. The examination is given on the PLATO computer system, and the student is provided with immediate feedback regarding his performance. This feedback provides a tool to be utlized in discussion with a faculty advisor regarding the student's progress and the planning of future learning activities.

It is important to emphasize that these examinations are diagnostic and prescriptive in nature. It is also important to point out that the total educational process in the School of Basic Medical Sciences is based on the concept of teaching as management. The faculty takes on the role of an advisor and manager, rather than imparting knowledge through lecture. They assist the student by:

a. Identifying what it is the student must know and be able to do;

b. Organizing objectives and units into a meaningful order;

c. Identifying a number of ways in which knowledge and skills can be acquired;

d. Developing diagnostic and prescriptive evaluation tools;

e. Monitoring student progress;

f. Acting as an advisor, one to whom the student goes when difficulties arise and questions need to be answered;

g. Providing guidance and supervision of the student's progress to assure that the student is proceeding effectively.

There are a number of factors, probably none of which was the deciding factor, that focused our attention on the existing basic medical science program for basic science input into other professional health sciences programs. Utilization of the existing basic medical science objectives avoids duplicating the time and dollars that are represented by the identification of 1,500 objectives, and the organization of those objectives into 300 learning units which are presented in a 7-inch thick curriculum document. Starting with the basic medical science curriculum also avoids spending resources developing new courses in various basic science departments on the Urbana-Champaign Campus of the University. Such an approach would result in courses with low enrollments being offered in departments that are academically oriented, not oriented to the professions or applied sciences; departments that are oriented to graduate level work, not undergraduate; and departments that are oriented to research, not instruction—all of which adds up to a limited desire and capacity to respond to the instructional needs of the developing allied health and nursing programs.

Logistically, a curriculum which is self-paced, self-directed increases the ability to utilize clinical resources in the Region. Region 3-B has five rather distinct sub-regional population centers. The five areas are connected by the Inter-State Highway System with traveling time from Urbana-Champaign to the other sub-regional centers ranging from 30 to 45 minutes. The health care agencies and the number of beds are fairly evenly distributed among the five sub-regional areas. Success in developing and utilizing a self-paced, self-directed approach in basic sciences would make scheduling of clinical experiences throughout the Region more convenient and practical.

Most importantly, underlying our activities which we hope will lead to an interdisciplinary approach to basic medical sciences are the following educational assumptions:

1. There are basic science objectives common to the learning needs of medical, nursing, and allied health students.
2. It is possible to define the behavioral objectives necessary to master the prescribed basic medical science content.
3. Basic medical science learning can be approached from multiple entry points, can be adapted to individual learning styles, and can accommodate the learning needs of students enrolled in different curricula.
4. All students admitted to the health science programs have the ability to complete their respective program.
5. Student progress through the curriculum should be in accordance with his ability to master the curriculum goals, rather than to time commitments.
6. Motivation to learn basic medical science content can be enhanced by relating science content to a clinical situation or problem representative of the student's field of practice.

Our first attempt at utilizing the one-year basic medical science curriculum for health professions other than medicine has been the identification of biochemistry content for the regional baccalaureate nursing program. The students in the regional program are completion students. That is, they are registered nurses who have had experience as practitioners, and, generally, enter the program with a limited chemistry background.

A committee comprised of six nursing faculty members, both from the Medical Center in Chicago and the regional program—primarily with responsibility for some aspect of medical-surgical nursing; a biochemist who taught the formal course in biochemistry for the nursing program; and two students in the program reviewed the biochemistry objectives in the existing basic medical science curriculum. Of the 313 biochemistry objectives, 236 were designated as high priority objectives for nursing, 70 were designated as moderate priority, and 17 were considered low priority. Nearly 98 percent of the learning objectives in biochemistry in the existing basic medical science curriculum were viewed by this committee as important enough to nursing practice at the baccalaureate level to receive either a high or moderate priority ranking. There were no biochemistry objectives important to nursing practice that were not included in the existing basic medical science curriculum.

The next major activity that has to be completed in order to utilize the existing basic medical science curriculum or an interdisciplinary basis is for the biochemistry faculty, as instructional managers, to review the learning experiences in each of the biochemistry units. Since this is instruction, we need to carefully review the established biochemistry units for appropriate learning experiences related to nursing.

If we continue to focus on the biochemistry objectives necessary to medical and nursing education, I am confident that interdisciplinary learning experiences will result. I feel the same will hold true as we begin to utilize the existing basic medical science curriculum for various allied health professions. After all, it is cognitive objectives in basic medical science, not cognitive objectives in the professional content, that we are attempting to relate on an interdisciplinary basis. It really should be a simple task; and while our approach may be different, I am sure it is being done or has been done elsewhere.

We, of course, will continue with the task, not necessarily because it is unique, but because it meets some of our very special needs. In many respects, however, we think the real challenge is to identify the affective objectives which are necessary to succeed as a competent practitioner. We know that a health practitioner's values and feelings about himself and others affect his performance. What other affective objectives might be learning to assure optimum performance and satisfaction in practice? If the health care team is to function as conceptualized in many of the AHEC project activities, the next big step in interdisciplinary education for medical, nursing, and allied health professionals should be a commitment to answer through curriculum development the question, "What do medical, nursing, and allied health professionals need to know, feel, and be able to do that can only or best be learned together?"

Innovations in Medical Education

Dr. Richardson K. Nobak

Let me begin by quickly stating some of the assumptions with which I came to this meeting. The first assumption is that we all represent line operators and that we are all fairly sound in our knowledge of educational theories and health care delivery, the state of the art, and the problems in trying to improve the state of the art. The second assumption is that we have deep commitments to the health care need in our area and the country as a whole. The third assumption is that in our major activities we are continually active problem solvers. Therefore, as we group here, the fourth assumption is that we are looking for a problem solution for the sharing of ideas and the sharing of innovations which are united by the common characteristic that they pertain to the charge of the Area Health Education Center program.

To move ahead I am going to suggest that in any complicated activity we can use five organizers. The first is the context, the second is the purpose, the third is the process, the fourth is the people, and the fifth is the product.

The context was set this morning: national needs and national concerns of health care with particular attention on access to health care and increasing the effectiveness of maintenance of health. The purpose of our program is to influence the distribution of practitioners and to influence the effectiveness with which we provide health care and health maintenance. Further, we believe that the educational resources in our areas offer the means with which to increase the distribution and effectiveness of health care. However, this has to be clearly within the social limits.

In turning to the process, I believe it wise to make a distinction. There is a distinction between the broad general purpose of the AHEC and the specific duties that are defined in the scope of work statements for all of the programs for which we carry line responsibility. My point here is in no way to apologize or shirk, but to keep clear and explicit the missions and the implementation steps. In short, the processes with which we are dealing are each individual to our particular Area Health Education Center and the scope of work in our particular contracts.

I find it difficult to synthesize all of the procedures, and I would therefore like to turn to some other generalizing capability. I believe we are all deliberately and carefully selecting those concepts and processes which look to be most useful. Here, the key word is "useful." I am suggesting that we probably all take as a tacit assumption that "useful" is defined as a synthesis of feasible, working, effective, efficient, influences on behavior in ways judged desirable, maintainable, and replicable. In this conference, I am looking for answers to the following questions. Are there any generalized concepts, problem solutions, insights and facilitators that can be used widely throughout the Area Health Education Centers? How can we share information like that above and any other that is relevant to help us meet society's needs? Third, what are the central rate limiting phenomena we face in trying to achieve the goals of the AHEC? And last, how can these rate limiting phenomena be solved?

At this point the logical question is how best to proceed. The real front line troops are here in the audience and, hopefully, a couple of us are up at this end of the room on the panel. Any one of us can try to describe our perceptions, but this bound to be limited by our own experience. If we back off for a moment, we have the choice of considering a large number of activities, methods, and tools. There has been discussion today in varying depth about parts of the formal educational process: pharmacy, dentistry, nursing, allied health medicine. There is the recognition of the importance of primary professional preparation, career ladders, mobility, residency programs, other formal post-primary preparatory programs, nurse clinicians, and other roles. Not mentioned, but clearly implied, is the importance of information services, whether that be library services or biomedical communications, to help support things like the independent-paced instruction or moving units of instruction away from the main educational engine. Also clearly recognized is continuing education. Many of us represent the large land-grant universities with a tremendous background in continuing education. Many of us represent membership and perhaps participation in professional societies with large investments and large experiences in continuing education. There are many different methods we can talk about. These are some of the major topics that are front of us.

We heard this morning of the recognition that distribution is a key factor. In my opinion, the Canadian Health Manpower Report of 1973 is the best single synoptic statement of the factors that are at play as we consider why any of us elect to be where we are so long as we retain the ability to make that election. There has been consideration of available processes to help us with our duties. We have had emphasized the importance of working partnerships with those in the area and in those portions of the areas where the need for health care services is the most marked. We can have data and plans. In part this conference is obviously designed to bring background statements and to help us pull together data and plans, because without data and plans we have no reliable way to move the minds of men. With data, with realistic proposals, I am sure we are all convinced that we can broaden the Area Health Education effort.

We are all convinced of the tremendous importance of educational efforts. In speaking about innovations in medical education, or what we are doing in the school of medicine as part of the allied health sciences, one must emphasize the importance of continuing education, in the sense that none of us is ever finished as a professional. One can challenge the concept of lifetime learning. I agree that it is an overworked phrase, but at the same time I think that we are all committed to it.

We can place in our educational efforts and in our models of the faculty or the educational manager's personal activities a high stress on primary care, and on responding to the needs of those portions of the country that have the greatest needs. Clearly identified is the importance of having a community base, which is a fundamental tenet in the AHEC programs.

In terms of innovation there are some 30 medical schools that are described as community-based medical schools. We do not own our own university hospitals; we prefer to work with the community hospitals in an effective partnership with a group of health care personnel and a group of health care institutions that are quite broadly representative of many of the settings in which much care is provided. The same principle applies to preceptors, who have been mentioned a number of times today. We can turn to the areawide residency.

We need to work for some organizing procedures, with processes for expanding the capability of health professions. We are talking in this session about teams: teams that provide effective care, teams that provide models for the learners, teams that provide very effective educational settings. If many of our younger learners, or returning learners, are in effective multidisciplinary teams for a substantial portion of their activity, the potential exists for these teams to spin off and out of the education-patient care setting and into the community practice setting. As teams with breadth, depth, relief, and professional stimulation, they can move into areas that otherwise would be much less attractive if a solo practitioner were there without the other members of the team. I propose this not as a simple solution, but as an additional facilitator of considerable importance.

Let me turn to some of the things we are trying to effect in Western Missouri. There, we are trying to say that a fundamental facilitator is to try to bring together in a generalizable system a range of activities from continuing education to primary professional preparation. We are developing a flowing program which shows the students that continuing education is feasible, and important, and engaged in. We are trying to hold in front of the students of the health sciences the tremendous importance of primary care. We are trying to avoid the disciplinary argument that the primary carer is a particular kind of specialist. Rather, we are trying to say that the public's need is for primary care and that there are a number of us in the different disciplines and in the specialties who can be effective as primary carers. We have recognized a substantial part of the patient care operation to emphasize the role of primary care, whether that is in the general medical service or in family practice residencies.

We are working deliberately with community hospitals. Students today are in 11 community hospitals. We have affiliations with other hospitals that are at a greater distance. We are developing an areawide community residency program and have residents that are at a substantial distance from the main base of operation.

We have a variety of programs, including one, a sabbatical leave program, which is designed to bring back into the medical center physicians from the area who can be on a month's sabbatical leave, bring first-hand experience of the problems of care to us,

1. SENIOR DOCENT
2. DOCENTS
3. CLINIC, INPATIENT, AND OUTREACH STAFF
4. PHARMACIST
5. NURSES
6. AUXILIARIES
7. RESIDENTS
8. VISITING DOCENTS
9. SABBATICAL LEAVE PHYSICIAN
10. DOCTORS OF PHARMACY
11. DOCTORS OF PHARMACY STUDENTS
12. PHARMACY STUDENTS
13. CLINICAL MEDICINE LIBRARIAN
14. DIETICIAN
15. SOCIAL WORKER
16. NURSING DOCENTS
17. MASTER OF SCIENCE NURSING STUDENTS
18. MEDICAL RECORD TECHNICIAN
19. DOCENT EDUCATION ASSISTANT
20. UNIT MANAGER

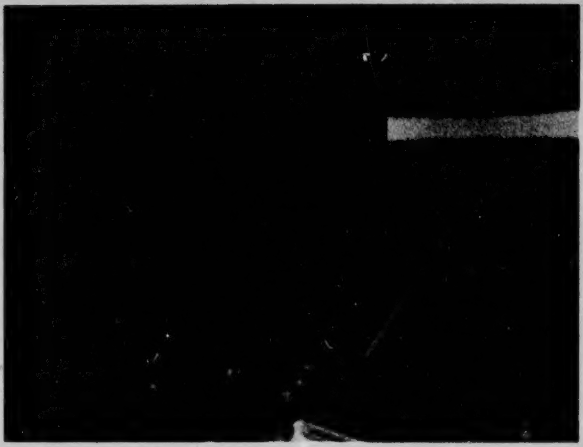
The above figure indicates that the docent team is made up of the four docents who share the counselor responsibility, visiting docents, full-time clinic and inpatient staff, pharmacist and pharmacy students, nurses and nursing students, auxiliaries, and residents. The docent himself is actually a dean of a small medical school. In this central position the docent team acts to correlate the needs of the patients and the needs of the students into an effective medical education-patient care unit, demonstrating the full range of general medicine. At the same time, the concept of *health team care* is demonstrated.

and at the same time extend and refresh their information.

I have selected a few examples which demonstrate that there is a capability for designing a rather broad set of activities that are, for the student or for the professional moving through the steps necessary for the fully credentialed professional practice, reinforcers of many of the themes that are central to the AHEC.

I would like to take just a moment to describe the composition of the Docent Teams. I have now narrowed the focus to the School of Medicine and to the major adult teaching hospital. In that setting, we have reorganized the medical service. The students during the last 4 years are grouped into units of 50 and work with four mature full-time physician-teachers, guides, role-models, coaches. These are our docents. That group of four physicians and 50 students becomes part of the members of a team. These teams have been operating now for just under 5 years and have the members shown on the following chart. This includes: the senior medical officer, who is a senior docent; three other docents for the total of four; the staff necessary for the combined responsibility for ambulatory care, horizontal care, and care at home; a clinical pharmacists; nurses; a variety of aides; residents in a general internal medical residency; and visiting physicians or visiting docents to broaden the strength of the program. We have as full members of the team full-time doctors of pharmacy, who have proven to be extremely important in extending the competence, the information, the concepts, the skills, the competence of all of us. We also have students from the doctoral program in pharmacy. There is a full-time clinical medical librarian especially prepared in library matters, medicine, and information sciences. The clinical medical librarian is a facilitator to the wealth of the medical literature and an individual whom we are frankly asking to habituate all of us, particularly the younger members of the team, to the need to have access to the best information in medical literature. The team also includes a dietician, a social worker, specially prepared nurses (nurse docent is a role analogous to physician docent), students in the master of science program in nursing, medical record technicians, and two very important management personnel. A unit manager relieves the physicians of much of the burden of managing a portion of the hospital and a docent education assistant helps 50 students and four educational managers go through their own activity.

As you look at that, many of you are probably thinking that I sound persuaded and convinced, at least to myself, that the team functions. I mentioned before that it has been in operation for some 5 years. We have tracked its performance very carefully. The patients whom we have interviewed away from the hospital after discharge feel pleased: about 90 percent are convinced that they have a doctor whom they can name. The various team members feel that they are in fact in a team.



Dr. Richardson Noback describes the docent team concept.

In another dimension, the length of stay in the hospital has decreased. We have controlled the cost of procedures so that from the hospital's point of view this is an efficient, dollar-wise, program.

My purpose is not to persuade you that this is a model for anyone else. I am simply discussing briefly another model of an interdisciplinary team which emphasizes primary care in a setting which has all the students in our programs out for preceptorships in areas of need. The team works with community hospitals and community practitioners of nursing, of dentistry, of pharmacy, and of medicine.

Let me then close by calling on Occam's razor to help us with some simplifiers. What I would like to see come out of this conference is the ability for all of us in the social visiting, in the discussion here as the committee as a whole, and in the round tables tonight, to discuss our mutual programs with the intent of capturing the key, unifying, general, and transferrable concepts, steps, sequences of action, procedures, and problem solutions as they pertain to the fundamental mission of the AHECs. If we can do that, I believe we will all be helped tremendously.

I would like to close, then, with my urgent request to all of us that we consider this last as an explicit part of our opportunities—to look for key unifying, general, transferrable concepts, steps, sequences of action, procedures, and problem solutions to help us better serve the Federal Government, which is our partner, which employs us, and which represents the general public.

Audience Questions and Discussion

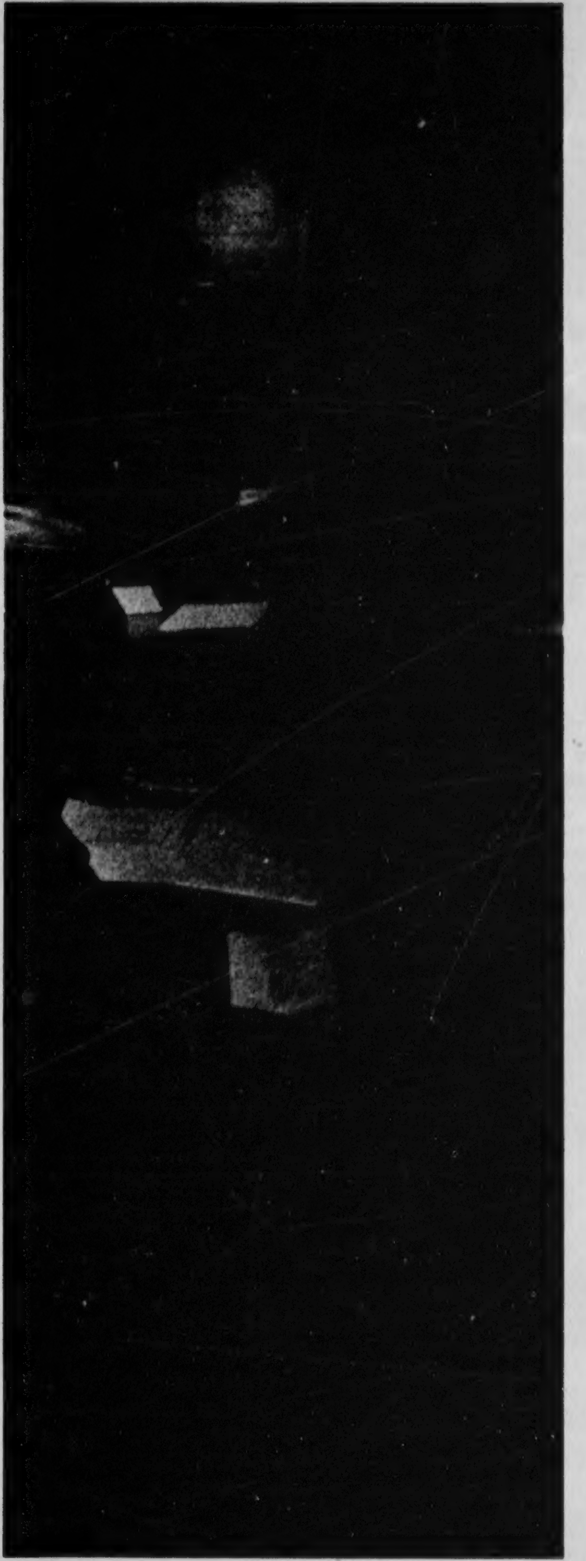
Dr. Edith Leyasmeyer: This afternoon we have heard a rather broad presentation of a variety of interdisciplinary programs, as they have been implemented in various parts of the country. As Dr. Noback indicated, the main purpose of this sort of a meeting is for us to exchange ideas, to learn from each other, and attempt to implement whatever points might be useful now for us. I would like to open the floor for discussion, to questions, to challenges to the various presentations that were made for you this afternoon.

Dr. Charles M. Cargille, North Dakota: Dr. Noback, of the various innovations that you have attempted in medical education, which three do you consider to be the most important advances in the field?

Dr. Richardson K. Noback: I appreciate the question, and I am afraid that I will have a little trouble in answering with an economy of time. The first, I think, would be the concept of the docent mechanism, the docent system of education. The second, I believe, would be the real ability in our own setting for the different health science disciplines to be very much at ease talking and working together. And the third would be a point I have not discussed, but the honest answer is the characteristic of a combined 6-year program, with the students of medicine flowing through 6 years of arts and science and medical program.

Dr. Edward P. Donatelle, North Dakota: Dr. Noback, one of the cautions in the use of community resources in medical education is that we must not move the student too often to too many varied places. What is your experience and would you react to this statement?

Dr. Noback: I would certainly agree with the position statement. In our own setting we have the advantage of starting with a clean slate, but after many of us had been working in the community for a substantial time. We also have the advantage of working in a community in which the University of Kansas Medical Center had been a dominant force, and many people were used to residents, used to students, so that as we began there were and there are many settings in which the ability to receive residents and students is quite strong. Given that, then, and given a front end philosophy that there will be movement to different places, we have not recognized a defect from a limited amount of rotation. I agree with the caution; I am simply trying to say that I think that with careful engineering the defects can be minimized.



View of audience attending panel session #2.

Dr. Theodore R. Reiff, North Dakota: I would like to address this question to any member of the panel. What role do you feel the medical student, presumably the senior or perhaps the junior, plays in the education of the practicing physician who is acting as his preceptor?

Dr. Richard J. Schimmel: Let me try to answer that question from the basic science development in Urbana. There is a part of the curriculum process that I did not take time to describe which we call the MDA-MDE, evaluation of students' performance in the basic sciences, and that is simply the time that the student spends one-to-one with a physician in attempting to correlate the basic sciences with clinical problems. The MDA is an M. D. advisor, the individual in that process; and then there is the MDE, medical doctor evaluator, who then works with three or four students, checking and balancing the correlation. The feedback that we have had, through constant surveys of the physicians participating in the program, is that they feel that they get more out of working with the students than the students are getting from them, and it is the student's ability to keep them up to date on the basic sciences. They bring that with them as they work with the physicians in the clinical setting.

Dr. Noback: Let me simply add that in our experience many of the physicians have said that the student brings with him, as we would all expect, the questions and some new information—so that there is some element of a mutual trade.

Dr. Rodger C. Kollmorgen: As a person who has been in a specialty for the past several years, I would add that I learn a great deal about general medicine, especially clinical medicine, from seniors in medical school. I would guess that probably two-thirds of the antibiotics on the market now have come on the market since I was in medical school, and I am continually picking the brains of the senior medical students for basic medical, especially clinical medical information. I hope that I don't get more from them than they from me.

Mr. Glenn Wilson, North Carolina: I would like to pose two observations to the panel for their comments. Everyone is aware of the current debate in the country on the number of residents by type, the 50 percent rule for primary care, and if you will, 25 percent in family practice. I wonder, in that we were talking about teams today, if instead of the professional deciding what the team should be, if we shouldn't look at the epidemiological information that is available on the kinds of problems that the American public is presenting to the health care system, both in the office and in the hospitals, and then design the teams and the number of residents based upon their needs, rather than the professionals' perceived needs. Secondly, in North Carolina, and as I listened to the nursing discussion, we hear a great deal of conversation about the need for career ladders and all of those interesting words that have been developed in nursing, to give mobility to the students, to move in the State and move in the United States, and in the world, I guess. There seems to be something unique in the curriculum necessary to have that mobility. I wonder if AHEC and the nursing schools do not have an obligation to worry about the regional needs of the areas which support them, and if it requires some accomodation, that we compromise somewhat the mobility of the student in the interest of the people who are paying for their education.

Ms. Bernadine M. Feldman: Well, I think that is precisely what we are attempting to do at Minnesota, to take a crack at providing some adaptation of the on-campus demonstration programs, both at the baccalaureate and the master's level programs. The reason why we stress these two components in our area is because of the crisis situation which exists in our target area in reference to qualified nursing educators and administrative personnel. We have many nurses—we really don't have a shortage, per se, of registered nurses—but we do have a shortage of qualified practitioners of both educators, administrators, and in addition, clinical specialists, and we feel that our support and coordination in reference to, first of all, the baccalaureate level program, and also the master's level program, would help to alleviate this situation.

Dr. Noback: With respect to the first part of your question, Glenn, my own personal answer would be in two parts: first, I agree with the point you made about the desirability of designing the response to solve the problem. The second part of my personal answer would be that we have to always meet people where we all are, and I think that says we engage with the tools, the mechanisms, the concepts and data that are present. I personally am very convinced that evidence and sound proposals will help social change to come about. This may seem to be a weak answer, but I think it has some elements, at least, of wisdom and practicality in it.

Dr. Leyasmeyer: I would also just like to add one more comment. I think that as we are designing health care teams we obviously not only look at the residents but we also look at health care workers, such as community aides and community health workers, who are perhaps indigenous to the community and are an expression of need within the communities, so that we are looking at a broader spectrum of the team.

Dr. Felissa L. Cohen, Illinois: I wanted to ask Ms. Feldman to explain a little bit about the relationship between the University of Minnesota main campus nursing faculty and the AHEC component.

Ms. Feldman: Well, we make use of the University of Minnesota faculty at the University AHEC. Four of their faculty comprise some of the key people that implement the programs that I try to coordinate and facilitate. We also are utilizing faculty from the only baccalaureate program within this central Minnesota target area. I think the only other nursing program within our target area is one of the few remaining diploma programs, located at St. Cloud hospital. So, we work directly with those faculties who really do the work in implementing our programs, and we try to coordinate and facilitate where we can.

Dr. Donatelle: Ms. Feldman, I enjoyed your discussion of your program in Minnesota. I am unclear as to what your master's program is. I wonder if you would elaborate a bit on that, and why that route, rather than specifically training the nurse in specific areas that would meet the requirements of a medical health team? Why the master's degree program, what is it, how do you work that into your total program?

Ms. Feldman: Well, the partial external master's program, that is just now in the process of being developed, provides an opportunity for baccalaureate prepared nurses within the regional AHEC area to gain the necessary qualifications so that they can become educators of nurses, nurse clinicians, and nurse administrators. In many instances the women—and it is women, primarily, that we are working with in this area—are married, with children, and have family commitments that do not allow them to come to the main campus. So we are attempting, at least as much as it is feasible, to bring the educational experiences to them in their area. And many of the innovations in education, such as multimedia educational approaches or techniques, audiovisual, and especially videotaped mechanisms—cable television—are making it even more possible for the on campus classrooms to be located or to be received in the regional area. We are also experimenting with many different forms of scheduling; for example, a very recent course in research in nursing is being held in St. Cloud. A University of Minnesota School of Nursing faculty person, who normally teaches on campus, is going up to the St. Cloud area every other Saturday, for the whole day, instead of one hour, three times a week. She did this on the basis of the decision of the students, who were intending to enroll in the course. They felt that this was, since they had to maintain jobs and maintain families, the most feasible. They could get away every other Saturday, and if they were going to be away they could just as well hire the baby sitter all day. So this was their approach, and it is the one we followed. So, we are trying to respond to the local personnel.

Mr. Ismael Bob Morales, Texas: Dr. Noback, I would appreciate your definition of the docent team training process and also would like to ask, in the past 5 years since this has been instituted, what evaluation has taken place, and if you could provide a couple of positive and negative results in terms of that program.

Dr. Noback: It is hard for me to compress an answer for that. In the process of redoing the medical service, there were many, many discussions about intent and procedure. That became a substantial part of the preparatory process for those who are on the teams. We have written objectives; we have written major procedures. As we talk with individuals who may be joining us as docents, we go through intent and process and similar activities of nursing, so the point I am trying to make is that there is a substantial investment in explaining and helping people to be ready to be on board. The second part was ...

Mr. Morales: The second part is evaluation, if it has been carried out. What has been the results, the outcome? In other words, has it been positive or negative in terms of utilizing that particular process?

Dr. Noback: I appreciate that question and assure the rest of the group that it was not a plant. We have just completed a very large report on that. For example, I can tell you that in place of the former, disconnected continuity of care, from the patient's point of view, the disconnected care that is often present in a prototype city-county hospital, we now have, from the patient's point of view, better than 90 percent of the time, that patient coming back and being seen by the appropriate member of the team. This may be a nurse practitioner; it may be a docent; it may be me; it may be the student supervised by one of us; it may be a resident. We maintain rather detailed analyses of the performance characteristics, laboratory tests, length of hospital stay. We have had very careful interview schedules, not done by the employer, the members of the team. The basic report is that from the usual criteria of hospital operation. This is effective in terms of the student's perception. They very positively feel that it is an environment in which they can participate with supervision and have graded responsibility. The pharmacists feel that the pharmacist is involved appropriately. The doctor of pharmacy is a teacher; he is a practitioner. The residents feel that they can draw on different people. I am not trying to say that we have no problems. It is difficult to condense a report which is about 7-inches thick into a quick reply. I would be glad to visit with you more about it in the course of the meeting.

Dr. August Swanson, Washington, D.C.: I would like a little clarification from Dr. Schimmel. If I heard you correctly, you said that in your basic medical sciences curriculum objectives, as set forth I believe there were about ten areas, in biochemistry you had identified 383—is this correct, roughly?—and that it had been determined that all of these were important to baccalaureate nurse education.

Dr. Schimmel: Out of the 313 that exist in the program now, in the M. D. program, 286 have been identified as high priority for nursing practice, another 70 as moderate, and 17 were viewed as low priority, and probably not essential for the nurses to know.

Dr. Swanson: What has been the experience in the other basic medical science areas, as far as this same process is concerned?

Dr. Schimmel: There isn't any. We are looking into some of the areas in histology and anatomy for our medical art program, but we really haven't gotten into it. I might add there is a running bet between the dean of the school and one of his own faculty members in the community hospital that the medical technologists' needs in the basic science areas will be far above the first year medical student's goals, and we will have to add to the curriculum.

Dr. Swanson: Well, this raises a question regarding sort of me-too-ism, and I was wondering who makes the determination regarding the objectives and their relevance?

Dr. Schimmel: It is a dialogue between the faculty in the particular professional field and the basic science faculty member in a particular discipline. In our case it was nursing and the biochemistry faculty. It maintains the integrity of the biochemistry content by having biochemists in dialogue with the nurses in determining the objectives.

Dr. Swanson: You have not tried a mixed team approach on this, beyond just the professional discipline and the basic science discipline?

Dr. Schimmel: No, because we have experience with just one discipline in the basic sciences and one professional field, at this point. We think it will identify basic science or biochemistry objectives for the medical technologosts, for example, in much the same fashion, and turn out with sets of objectives that are appropriate in three fields. The important thing is the focus on the objective, as stated, and not on the professional field.

Dr. David Kindig, Washington, D.C.: A number of people have commented upon the lack of hard data in this field, both in relation to the effectiveness of interdisciplinary practice and the effectiveness of interdisciplinary education, and I think that is really an understatement. I just thought I would share with you two experiments that are going on now that may bear some light on this question, sponsored by the Institute for Health Team Development at Montefiore Hospital. The first is an experiment in interdisciplinary practice. They have created a small, interdisciplinary primary care practice team, on a fee for service basis, in the private sector, funded by the Johnson Foundation. They are carefully looking to evaluate, over 2 years, their quality of care, their quantity of care, their cost effectiveness, and attempt hopefully to demonstrate at least the viability of that mechanism as a primary care delivery system. The second part of the experiment deals with the educational evaluation. There are five health science centers which have put together faculty teams over the past year, and starting next fall they will be offering clinical interdisciplinary electives to teams of students, with some careful evaluation of knowledge, attitudes, and skills to try to ascertain, assuming that the practice model is a good one, what kinds of educational methodologies are clinically effective. Some of the results should be coming along in the next year.

Panel 3

AHEC Governance

Moderator: Mr. Glenn Wilson
Program Director
North Carolina AHEC

Panelists: Dr. Charles E. Andrews
Provost for Health Sciences
West Virginia University
Project Director, West Virginia AHEC

Dr. Cecil G. Sheps
Vice Chancellor for Health Sciences
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Mr. Gary Dunn
Project Director
North Dakota AHEC

Mr. Dewey Lovelance
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Panel Presentation #1

Dr. Charles E. Andrews

The Area Health Education Center concept represents an interaction of two of the most complex social systems society has developed, a university and a hospital. It is not surprising that many governance problems have developed in implementing this concept. Emphasis on a few basic general principles is often helpful in solving complex systems. I propose, therefore, to explore a few of the ideas concerned with governance and then see how they apply to specific problems in AHEC governance.

Governance is concerned with authority and may be defined as the act of steering, controlling, or directing. The ability to govern comes from a source of power or authority. There are three general sources of authority or power: (1) legal; (2) technical; and (3) charisma. Charisma, in current usage, refers to a special, unique quality or personality possessed by very few individuals, which enables them to govern, at least temporarily. John Kennedy was said to have charisma, and many people believed in and followed his leadership because of this special characteristic. Charisma represents a unique source of authority, possessed by a very few individuals, all department chairmen notwithstanding, and thus it is an important type of authority when concerned with problems in governance. However, our primary concern is with legal and technical authorities and their interactions. Institutions and their programs will not operate effectively unless they abide by both legal and technical authorities.

An Area Health Education Center can be defined as a realtionship between a university health science center and a remote community, with special reference to its health care and educational resources. There are several sources of legal authority that serve to define this relationship: Federal laws and regulations, such as the legislation establishing the AHEC program, governmental regulations in regard to contracts, and the Equal Employment Opportunity regulations, are obvious examples. There is a large body of Federal law concerned with governance in addition to the enabling legislation that established the AHECs. There are many State laws and regulations with which the AHECs must be concerned. They vary from definitions of broad program responsibilities to specific details as to how an institution must operate. They may establish a Board of Regents for a specific university or medical school, or determine how a community resource, such as a hospital, may operate. For example, judicial opinions have clearly defined the responsibility of the Board of Trustees of a hospital for the quality of patient care in the institution. These laws, rules, and regulations are especially concerned with how public funds may be spent. Thus, familiarity with these laws, rules, and regulations is necessary to define the purpose of our institutions and programs and how they must operate.

Many examples could be given of how laws and rules and regulations are involved in the governance of AHECs. However, I think the above examples should be sufficient to make the point. It should also be clear that a good lawyer, comptroller, and auditor are necessary for meeting the legal requirements in the governance of an AHEC. When conflicts in authority in the legal sphere occur, there are specific ways of resolving these problems. The problem may be solved by requesting an official interpretation of the rule or regulation through, for example, the State Attorney General's office. Or, if this fails to resolve the problem, the issue can be tested in the courts. The important point is that there is a clear cut, well defined way of solving problems or conflicts in areas concerning legal authority.

Now the second kind of authority concerned in governance is technical authority. This authority may be defined as that based on a specific body of knowledge. Thus, there are technical authorities in medicine, nursing, education, social work, etc. Universities, of course, represent one of the prime repositories of this type of authority. A University Senate, if it is functioning properly, represents technical authority in action at its best. Such a group would set the standards for curriculum, course content, graduation, and other important academic affairs. It is the strength of a university that the technical authorities prevail in these important matters. However, it must be noted that a University Senate only recommends to the legal authorities what courses may be given and who shall graduate. This illustrates the most important point that I want to make: that is, for a university or a hospital or an Area Health Education Center to function, there must be a proper blend or mix of these two authorities. From the nature of technical authority, there follows another important point. If there is a problem to be solved which involves technical authority, it is imperative that the right kind of technical expertise be brought to bear upon the problem. To use a somewhat absurd example: to solve a problem involving a patient with congestive heart disease, a physician is required, not an historian. Equally important, management or the person with the technical knowledge must recognize there are several processes involved in solving technical problems, and that as the problem changes, both the type and the nature of the technical knowledge rquired in the process involved may change.

I would like to develop this point a bit further since I believe that it is at the heart of the governance or management problem of academic health science centers. Two key components of such a center are the mecial school and the hospital, two closely related but entirely different institutions. Decisions in the medical school are best made after much careful thought and deliberation. If the decision is to be implemented, there usually must be adequate faculty and staff input into the decision process. As opposed to this, a hospital is crisis oriented. Things need to happen, and happen fast, That is, the problems have to be solved quickly, and frequently only one or two people are involved in the decision. Now, difficulties arise when faculty or staff forget which type of problem they are trying to solve and which process is appropriate. For example, in the operating room the surgeon is unquestionably the captain of the team. His orders must be followed immediately, without question, if the operation is to succeed. However, if, an hour later, the surgeon meets with the junior student curriculum committee, he must function in an entirely different manner. His ideas will be questioned, and his input may have little effect on the final decision. I believe it is the failure to recognize these different roles and different processes of problem solving by the faculty and staff that leads to most of the difficulties in the governance of medical centers and hospitals and Area Health Education Centers.

It is the management of an organization at all levels that is concerned with governance, and the interrelationship between legal and technical authorities. Management in itself represents a source of technical authority. In a sense, management's prime function is to see that the objectives of the organization are met by the use of technical authority within the constraints imposed by legal authority. There are several guidelines which may be helpful in accomplishing this, First of all, everyone involved must understand that legal authority takes precedence over technical authority. Failure to do this can lead to problems in governance and to failure of a particular organization in accomplishing its goals. For example, in West Virginia the State Licensing Board has listed certain requirements of licensure of physicians' assistants. One of these rules requires that the physician be in the same room as the physician's assistant when the latter is performing his duties. This runs contrary to the opinion of technical authorities in the field, who believe that properly trained physicians' assistants can function outside the immediate presence of a physician. However, the legal authority takes precedence, and if a physician's assistant is going to receive his license he must abide by this particular rule. Probably the best example, with which we are all familiar, is the situation in which the technical or program authorities define how a particular program should be operated. Yet the legal authority, in defining budgets or amounts of money, do not supply sufficient funds to accomplish the program as defined. Obviously, you don't spend state funds that are not appropriated unless you want to go to jail, regardless of what the technical authority has defined as the best program. If a particular problem is to be solved, the manager must correctly decide whether it is a legal or a technical problem and set up the right process. From this it follows that you must also get the right people to solve the problem. To use the example mentioned above, a lawyer will be of little help in solving a problem of congestive failure. You must be sure that the right technical authorities involved use the right process to solve the problem. Remember that technical or scientific knowledge is rarely exact, but that there are honest differences of opinions among experts. The right process may be a position paper by an individual or a consensus arrived at by a committee. If the technical or knowledge authorities disagree on the solution of a problem, as is frequently the case, it is probably best to let the technical authorities arrive at a compromise for action. Their solution will probably be better than yours, and it will certainly have a better chance of being implemented. An example of this might be defining the role of the nurse practitioners in the primary care unit. The technical experts who are working in the area must make a definition that allows the group to accomplish its goals.

Finally, I would like to list four specific problems in AHECs' governance of varying complexity and briefly to discuss them.

The first of these concerns the contract between the Federal Government and the parent university. This is a good example of the problem of interrelating legal and technical authorities. The Federal Government recognized this by requiring that the university negotiate with both contract people and program people, that is, legal and technical authority. The program negotiators, however, in reality wear two hats in that after the program has been agreed upon it becomes legal authority. This creates problems in management, since new program definitions can never be as exact as, say, accounting procedures or rules and regulations established through court procedures. Thus, carefully written work statements become the essence for implementing the AHEC concept to Federal funds which are to be used in the process. Another problem in this area is that legal authority is not always clearly defined. That is, regulations from a Regional Office and regulations from Washington may not always be consistent.

The second item in governance I want to note is the affiliation agreement between the university health science center and the community hospital or other organization involved in the AHEC. Such a document is a legal requirement as the program is currently constituted. It is more than that, however. An effective document must have at least three parts. The document must clearly define the legal relationships and obligations between the two entities. In its simplest form, this states their developed financial obligations. Second, the document must state or develop a mechanism whereby problems involving technical authority may be resolved. Failure to reach appropriate agreement here can lead to many, many management problems. And, finally, there must be a clearly stated way to amend the document.

A third type of problem in AHEC's governance might be labelled the "paycheck problem." Most individuals look to the source of their paycheck as the final authority for solution of a problem. However, the legal authority issuing the paycheck may not be the appropriate authority to solve a technical problem. For example, to develop a particular allied health program it might be necessary to have representatives from a university, a community college, a hospital, and a comprehensive health planning group involved in the planning process. The power or the influence of an individual or an institution in the planning process should not be dependent upon the salary of the individual involved or the funds the institution plans to allocate to the project. Rather, it must depend upon the technical expertise the individual can contribute to the process. A clear definition of what is to be accomplished by appropriate management to the individual involved is usually most effective in preventing this problem.

A fourth problem is concerned with who shall be the Chief of Service of the community hospital when an educational program for medical students or residents is established. Should the Chief be a full time educator, appointed by the university, or a practicing physician from the community? Both groups must be effectively represented if the students are to receive an adequate educational experience and the community service responsibilities of the hospital are to be met. There is no single solution that will work on every service and in every institution. To solve this problem, it is vital that the problem be stated in terms other than who is boss. A more rational way is to try to get the individuals to state the objectives they want to accomplish and then mutually work out a way to accomplish them.

In summary, I have very quickly outlined our sources of authority, legal and technical, and applied them very briefly to four problems in AHECs' governance.

Panel Presentation #2

Dr. Cecil G. Sheps

Obviously, one of the problems we face is determining the role of the university in modern society. Universities which started out with a very straightforward, single function have begun to develop additional functions calling for change if they are going to be implemented. Change means not merely that things are different, but also that they have to be qualitatively different. With the AHEC program, the change needed is not only quantitative, but is also qualitative in the sense that it brings in elements that have previously received little or no attention. This creates uncertainty and concern on all sides. In addition, community institutions and community people start with an ambivalent feeling about universities in any case. They think that universities are prestigious and important and yet too theoretical and often not really close to community life. As far as the universities are concerned, they have benefitted in some ways from their isolation: they are protected from the slings and arrows of outrageous fortune and the exposure to situations which they cannot completely and continuously control in which people are not ready to continue to bow in obeisance to them. Such situations produce uncertainty and make it easy for some people, at least for a while, to retire behind some rather high-sounding slogans which have to do with scholarship, preparing for tomorrow, and academic freedom.

As Dr. Henry Sigerist, the great philosopher and historian of medicine, said some 30 years ago, "Universities tend to be like beautiful women; they like to be admired, but not discussed." At the same time, the adulation which universities like to get is not satisfactory to them if it is confined to compliments in words. They would like those compliments in words to be accompanied by dollars. In the past, it was nice when these dollars came automatically, or when they came from private philanthropy. When this became inadequate, universities turned to tax dollars, which have some strings attached to them, strings which some people resent. The leaders and administrators of universities in the whole Western world are having to fact the question of their relationships with their governments, which will ideally, as far as the universities are concerned, give them all the money they want and allow them to do what they think needs to be done, making decisions entirely on their own. There was an international meeting, just about six months ago, of universities from the Western world and from Asia. The Presidents and Chancellors talked about the very difficult problem of how to maximize the relationships between governments that support higher education and the needs of the universities. One of the chancellors of one of the Asian universities got up and said, "You know, we really shouldn't bemoan this any longer. This is here to stay, and we just have to realize that the marriage with Caesar has to be consummated." Someone else got up and said, "Yes, but how many times a day?"

I would like to talk about some general problems and principles, using illustrations from the field of medicine. I apologize for this, because we are dealing with more than medicine, although the AHEC program recognizes the central role of medicine and it is in relation to medical education and medical care that we have had the most experience so far. However, I believe these illustrations have meaning in just about the same way for the other fields of the health professions that we are concerned with in this important program.

One of the characteristics of education in health professions that creates problems for universities is the fact that their being part of a university is a relatively new development. Medical education was totally, in the main, in the Western world, unrelated to the universities for a long time. Even when medical education was a part of universities, it did not actually have much to do with the university. The base of educational programs in the health professions by and large has been, and continues to be, one that is carried out in the framework of the delivery of care. That in itself creates a new set of problems for a university, because in all of its other activities the university has full and total control over the framework of its education. In medicine, on the other hand, the crucial parts of this framework rest upon an involvement in the delivery of care. The way many universities and medical schools have solved this problem, at least in the past, is by arranging to have full control over the framework of this care. This was responsible for the idea of the university hospital which the university owns and controls. After a while, it became clear that this arrangement was not adequate. Consequently, affiliations were developed with other hospitals which were expected to be carbon copies of the university tertiary care hospitals.

Many of the problems you are wrestling with are problems that have to be dealt with in that context. Clearly, one of the issues is to what extent can and should the affiliated community hospitals be carbon copies of the university-owned, university-controlled tertiary institutions. I am one of those who believes that the worst thing that could happen is to try to achieve that. In the first place, I do not think it is achievable. In the second place, I do not think it is what is needed, because what is involved here is not simply more of the same, but the addition of something which is different and has a value of its own, not only to the commodities involved, but also to medical education. That, of course, is an idea in which not all of the chairmen of clinical departments, the academicians, really believe. In North Carolina, however, I have the impression that more and more of the medical faculty have begun to appreciate the fact that learning within a community hospital setting represents a component in education which is uniquely important in the preparation of the people who will, in their professions, protect and restore the health of individuals and the community.

Related to this is the question of what the AHEC program is for. It is perfectly clear to me that the Congressional intent, and certainly the hopes of the people in this country who know about the AHEC development, is that AHEC will change the content of health care and positively influence access to that care. However, if the AHEC program is to be expected to do all of that, it certainly does not have the resources nor the framework for so doing. The AHEC program is actually designed to be an instrument to produce people who will have received and developed the appropriate training and education to carry out these roles. I do not think we can assume that, having done the education job well, the change will automatically take place. What we have a right to assume, I believe, is that this is an essential ingredient. If you set up a framework for a certain kind of care and do not have the people available who know how to deliver it, then you have achieved little. Several other, parallel activities need to be carried out, in relation to which the AHEC responsibility devolves primarily on the development of personnel. I think we need to see to it that the other kinds of developments do indeed take place, so that the people who receive training can put it to good use in a framework that welcomes and fortifies it. This seems to me to be an important thing to do.

I would expect that one of the problems in governance here is how to develop a partnership. The word "partnership" is a nice word, as is the word "teamwork"; but are we talking about senior partners or junior partners? Are we talking about first class citizens and third class citizens? There are no easy answers to such questions, but the universities that say, "Nobody is going to tell us what to do," are really not even recognizing the truth about themselves, because they are very much influenced, as individual faculty members and as institutions, by what their peers do, by where the money is coming from, and by where the rewards are. I do not think we should feel that because the AHEC program has to some extent the facility to offer people or institutions some rewards in various forms that somehow this is unfair. Without rewards, it is very difficult to move anywhere. Moving the university in its program, getting it to change its concept of its role, is almost as difficult as moving a cemetery. Nevertheless, change does occur. If you just look at what has happened to universities in general, and particularly in the health fields, you will see that tremendous changes have taken place. None of the major changes has occurred, however, as a result of changed perceptions within the institution. The forces that have changed them have come from the outside. Take the very classic example of the Flexner Report, which we hear so much about. When the Flexner Report was published, in 1912, the medical educational establishment in the universities could not have cared less. However, the Rockfeller Foundation spent close to $90 million in the next 10 years, a sum probably equivalent to $500 million now, trying to implement these ideas. Some universities said, "Go away, don't bother us," while others said, "Yes, we would be glad to think about it." It took 50 years before all the medical schools of this country adopted the general principles that were involved in the Flexner recommendations.

The tremendous and very important research component in the medical schools came about because the people of this country, expressly the will of Congress through the NIH, made a great deal of money available. That is what changed the universities, and many medical schools were at first very uncomfortable about this. It took some medical schools decades to get reorganized to take advantage of these funds. Many of them needed a lot of stimulation. It is not as though they were waiting and ready, and all they needed was the money. They did not even have the orientation. This is not to say that there are no ideas which come from within the university, but it is simply to illustrate the point that universities do respond and that universities need to have a situation in which the society they serve demands that they respond.

We talk about the universities in connection with the AHEC program as being a vehicle, a vehicle for the attainment of the goals that have been given to AHEC and that AHEC has adopted. It is important, however, to realize that this is not an activity which the university can carry out without undergoing change. A vehicle is something that moves something from one place to another. You get on a bus and go somewhere, and then you get off. If that is done frequently enough, there is some wear and tear on the bus, but the bus itself does not change. The concept of the university as a vehicle falls short, because the university as a vehicle is not designed, engineered, or organized to do what AHEC needs it to do, and therefore it must undergo some change. It must make adaptations which will at one and the same time achieve what is needed in the AHEC program and also protect the essence of what a university is supposed to do in our society.

Now this, of course, raises questions of control and who makes the decisions. I would suggest that to put the question as to who makes *the* decisions is not to put the question right. The question needs to be stated, "Who makes *which* decisions." Instead of saying that in the end some single individual, group, or institution must make *the* decision, the AHEC program is asking us to address the question, "Who makes *which* decision." If we can sort this out, and I think from what I know of some of the AHEC programs that this process has already begun, then it seems to me that some of the problems can indeed be dealt with.

Let me say a word about academic freedom. I have been a member of the Association of American University Professors for 30 years, and I believe deeply and firmly in academic freedom. I do have a rather clear notion of what it means, and I try not to use it to becloud an issue. Academic freedom in the universities of the Western world is a notion which was developed to protect the truth as seen by members of a faculty because new knowledge always means that adaptations have to be made, if not in programs, at least in the way people view things. The first notion that the world was round was not welcomed very much, and there were people who lost their lives because of their expressions of the truth as they saw it. *That* is the issue in academic freedom. The concept of academic freedom is to protect the individual from persecution when he says something that is not popular, because we have learned over time that he may turn out to be right. That is what academic freedom is about. When people say that the university should not sign a contract with the Federal Government because it interferes with academic freedom, they are speaking nonsense. Another answer is to say, "Okay, don't sign the contract, but don't expect a responsible agency to give you money to do whatever you please with it." There is a difference between saying, "We need a certain kind of program, and if you would like to carry it out, we will help you do it by giving you money," and saying, "We have decided that the world is indeed flat, and we will give you money if you will go and prove that it is." We can deal with the latter statement by saying that maybe it is not flat. It may be that some of the people who use the concept of academic freedom when they are discussing doing things which do not appeal to them are serious about it, and are not deliberately using something that just sounds good. But that does not make it any more valid.

Let me finally suggest that Dr. Andrews' reference to the affiliation concept is really a very useful one. We have had a lot of experience with this, and some principles have indeed emerged from that experience. If you examine the experience, what you find is that the best affiliation situations are not those where an attempt was made to force the affiliated institutions to do everything in the way the so-called parent institution wants it done. The best affiliations are like a companionate marriage, where the parties agree to share goals sufficiently so that they can find ways of working together. To say that the community hospital has precisely the same goals as the university-owned tertiary hospital, each of them in precisely the same ratio of emphasis to the other, is to disregard the truth. In fact, these goals, of patient care, research and teaching, in terms of the ratio of emphasis in different types of hospitals, should not be the same. Within the university tertiary hospital we say the goals are teaching, research, and patient care. We talk about them as though they were interchangeable. While they are, of course, interdependent, and the effectiveness of one clearly influences the effectiveness of the other, they are distinct entities and it is extremely important to think of them in that way. A friend of mine, in talking about this three-legged stool of patient care, teaching, and research in university hospitals, has said that it is indeed a very tipsy tripod because these three legs are in few places of equal length. If you want to get an appropriate balance—and I am not saying they need to be of equal length, but that they need to be of different lengths in different situations—then it is terribly important that the overall governance and decision making structure include those who are concerned with education primarily, those who are concerned with research, and those with patient care, so they can make accomodation with each other. One should not assume that every institution adequately represents all three forces.

One of the elements in the AHEC program which I think can be relied upon more than any other to help guide the development of an appropriate governance structure is the program commitment that is made to achievement. The more specific that can be, the more certain we can be that the governance problems will sort out themselves. If governance is put ahead and is made antecedent to the determination of program elements and program achievements, it is going to be very difficult to get the best kinds of programs because then you have a situation in which the form governs the substance. What we need is for the form to implement and expedite the achievement. The famous architect, Louis Sullivan, who was responsible for the new wave of architecture in the twentieth century, said, "form follows function." You do not build a building and decide how many pillars, doors, and windows it will have in advance, and then try to make it work as a hospital. What you do is to decide what functions you want to perform, and that tells you what kind of building you should build. I believe that the single most important factor in enabling us to deal with the governance problem, aside from the contributions of well-trained, dedicated, and experienced policy makers and administrators in this program, will be the extent to which you have a statement of detailed program objectives which provides the framework in which you can decide who shall do what, and who will make which decisions.

Panel Presentation #3

Mr. Gary Dunn

The two previous speakers have addressed broad philosophical issues related to governance. I would like to share with you the more practical issues of governance from the perspective of AHEC directors. To begin with, I think when we consider AHEC as an entity brought to the university, and the kinds of things we have been able to achieve by using it, we see that AHEC has become an opportunity for the university to move into the community and to change its image to a more humanized, personal, concerned institution—as opposed to an impersonal ivory tower. It nows appears to the greater community, to some extent at least, that at last the university is concerned about real problems and is taking some positive steps toward their resolution. The AHEC, as a mechanism, makes possible a symbiotic relationship between community resources and the university. It has become, for many of us, the marketplace where we exchange ideas in return for access to patients and facilities we would not have otherwise. This process has provoked a considerable amount of bargaining and negotiation—stimulating a variety of reactions on the part of the university community.

I would like to be able to say that AHEC has received the complete sympathy of the total university community. Unfortunately, many faculty have said to me that it is contrary to the intent, purpose, and integrity of the university to cohabitate with the community to the extent AHEC demands. They have said on frequent occasions that the AHEC is sticking its nose in where it does not belong. They have accused us repeatedly, and with some validity, of making decisions that should rightfully be left up to the university. These statements continually redirect us to review our program with the total administrative community in trying to work through the problems we face in negotiating for the assistance we need from the greater community.

Another characteristic of the AHEC program which is sometimes grating to faculty is the fact that AHEC has very specific objectives which are spelled out quite clearly. To faculty members this indicates a kind of sellout, an over-reaction, and a watering-down of the academic influence that will somehow have a serious effect on the quality of the program. These objectives become irritating to the very faculty we are trying to involve. We know that a considerable amount of activity exists in universities for its own sake. Often the raising of issues about quality, academic freedom, or institutional purpose is a camouflage for concern on the part of some faculty that they may be recognized as involved in activities lacking in accountability.

There are also members of the university community who are very suspicious of the authority of the AHEC. They see the attempt to live in the greater community as a threat and a departure from the university's major responsibility, which is excellence in teaching, clinical care, and research. I do not want to dwell too long on these issues, but they are some of the real world problems we face every day. The whole issue of involving community faculty is a continuous debate. How many community faculty? What are their roles going to be? What is their rank going to be? How much of the educational program is going to be conducted by them, and who is going to supervise? All these are questions that have to do with extension of academic effort through the use of "nonacademic" personnel. This is cause for a great deal of concern among university faculty. It is a sensitive area, but one which must be dicussed openly.

Prior to breakfast this morning, we had a vigorous discussion of the position, which goes as follows: It is all right to use Dr. Smith on a site 300 miles from the university for a teaching program, but make sure you keep him in his place by calling him "clinical" or whatever euphemism you want to use, because we must continually make a distinction within the faculty. We are getting some feedback from community physicians who are saying, "If, in fact, we are a necessary part of your program and if, in fact, you need us to the extent you say you do, then why is it that you insist upon making these distinctions?" The reply from the academic community is, "You can't take someone who has devoted whatever period or time of his life he has to patient care and suddenly transform him into an academician, and if you don't keep this distinction, it will taint the image of the university."

Another problem we have encountered in AHEC is the matter of extending beyond the hallowed ground of the university and going out into the greater community where there is another university. There is a fear about the extension of your influence into their backyard. Other schools and institutions want to be co-equal. They do not want to be anything less than that. If AHEC suggests doing anything at a remote site, the local college or university wants to be the one who does it. They do not want the AHEC university transgressing or getting into their area. That is not to say that they would be interested in presenting a given program, but they do not want you to do it. We have made every attempt to try to work with the problem by sharing the responsibility. However, the issue is complicated when a need has been identified within another institution's backyard. If the program is stalemated, for whatever reason, because of the contract mechanism AHEC is accountable.

When you do interest a community in what should be done or what could be done in the training of health manpower, they begin to look to AHEC and make demands or requests that we cannot always meet or react to in a very deliberate or immediate manner. This often creates credibility problems and hard feelings. For instance, almost every institution that we had a dialogue with has started out assuming that AHEC was there to dole out money. On the positive side, however, it has been valuable from the beginning, to have a five-year contract with the Federal Government that we can refer to as we move through negotiations with other institutions. It looks to them, when we talk about arrangements for a five-year contract, to be a program of some credibility. It assures them that if they get involved there will be time enough for them to see some fruition of their efforts, and it provides a substantial amount of support for institutional cooperation. The advent of regionalization prompted a certain amount of concern on the part of some programs that, with the changing of the guard, there might also be an urge to re-describe the ballgame now that we are in the third inning. In my opinion any attempt to maneuver the first-year agreement in one form or another without careful negotiations between the parties would be disastrous.

I do not think the Carnegie Commission could possibly have anticipated the implications of establishing sub-administrative units over a large geographic area and the kind of problems that accompany it. I would write another chapter Rollo May's *Power and Innocence* about how completely innocent we were when we made the assumption that all we had to do was assign professional people to the Assistant Dean level, put them in charge out in a remote community, and there would be no problems. It was not long before we found, and still find on occasion, those assistant deans functioning within a region, severely stricken by a complete misunderstanding of who they work for, where the payroll comes from, and what they are out there to do. This problem can be lessened somewhat by frequent exchange of visits, but the whole question of identity is a very difficult problem. How do you stay alive in a remote community and at the same time keep your university identity? How do you arrange your life so that you have the kind of support for the kind of principled things that you might have to do, which may not, in every case, be favorable to a given community? I think we underestimated how difficult that is indeed. As a result of that underestimation there is some reconsideration on our part about the need to provide more support. I was pleased to hear Glenn Wilson say this morning that he had concluded that a critical mass of university personnel, somewhere in the neighborhood of six, is necessary in order to provide a sort of subculture that would make it possible for people to have a dialogue with their own professional community. The social life, the recreational activities, and the professional life of someone living in an outpost are so very different that we often fail to realize how difficult it really can be to run a program in a remote site and still keep your balance.

What I have come to see as the valuable part of AHEC is accompanied by the realization that any future expansion of the training of clinical personnel is going to have to be arranged either through the AHEC mechanism, which I am not sure is the only answer, or it is going to have to be arranged so that the university can obtain access to the community facilities which, at this point in time, no university can afford to purchase. And I think the success of AHEC will probably be in direct proportion to whether or not it has been able, through the contract route, to make lasting arrangements with the greater community and its resources.

Panel Presentation #4

Mr. Dewey Lovelace

Community AHECs have to have room to maneuver. They cannot be structured in a straight line or within two white lines. Breathing room is essential. In order for you to better understand the Wilmington AHEC, perhaps just a little bit of history as well as some orientation about our area is in order.

New Hanover Memorial Hospital is relatively new, having taken the place of two old hospitals approximately 8 years ago. There is a history of training interns and residents, and during the last 4 years the teaching programs have been in cooperation with the University of North Carolina. In 1971, the previous arrangements became formalized in that Articles of Affiliation were signed between the University and the Board of Trustees of New Hanover Hospital. The Board of Trustees, in order to make the cooperative effort more workable, created the Health Sciences Foundation, Inc., and under the umbrella of this new corporation is the Area Health Education Center. The hospital trustees, I believe, realized that this was an appropriate arrangement, because while they wanted to maintain a good bit of control and say so, as it would relate to the Area Health Education Center, they also wanted the outlying hospital and other health related agencies and individuals to also have considerable input into the AHEC. Therefore, the Health Sciences Foundation Board of Directors is composed of the Executive Committee of the Hospital Board of Trustees, as well as its Chief of Staff. The other members who make up the 11-member board are prominent community leaders, as well as educators. This board appoints an executive director whose responsibility it is to oversee the general operation of the AHEC. The non-physician faculty consists of a Director of Education, Nurse Coordinator, Pharmacy Coordinator, Public Health Coordinator, Librarian, and Audiovisual Technician, along with the secretarial assistants. These individuals are responsible for continuing and in-service education for all levels of health care workers. The medical faculty, numbering six, are appointed by the University and are stationed in Wilmington. In addition, there are eight part time faculty, who are primarily practicing physicians in our area. These faculty positions, for teaching and for service, are members of the hospital department wherein their specialty lies. For instance, at New Hanover there are residency programs in medicine, surgery, and ob-gyn, with 22 residents. They are also responsible to the department chairmen, both at New Hanover and in the School of Medicine at Chapel Hill. The Executive Director has overall administrative responsibility in all areas. I believe at this point I should point out that, not being a physician, I rely heavily on the recommendations of the teaching faculty for any decision relating to teaching, and if further consultation is needed our office would then call upon the Chairman of the respective service in the hospital or the Chairman of the department at the University.

As you can see, this is somewhat complicated. In reality, it has worked very well for us in that, first, the physicians are members of the hospital department and must have approval from the hospital department to make any unusual change in philosophy or procedure. This is a check on the teaching service and, at the same time, it keeps the respective hospital department aware of what is going on insofar as the teaching service is concerned. Secondly, the University, obviously, has certain teaching philosophies, guidelines, and expectations, and these are fulfilled through the faculty status with the University. It is essential, however, in my judgment, in an organization such as ours, that the AHEC Director have a very close relationship and an open door policy, as well as frequent meetings, with members of the AHEC teaching staff and the Director of the core hospital, as well as meetings with the directors of the outlying hospitals. Without complete understanding and the cooperation of the hospital directors involved, a viable teaching program cannot exist. It is also very important that any new programs, before implementation, preferably during the thinking stages, be cleared with the Hospital Director, as well as the Hospital Board of Trustees, and with the Executive Committee of the medical staff, if the proposal affects physicians. Needless to say, we attempt to accomplish this in our area by maintaining a close relationship with the hospital directors, as well as through the aforementioned formal meetings. Such will avoid needless trouble.

I would now like to discuss with you our relationships, cooperation, and governance, as these things relate to our six satellite hospitals. These hospitals, with the exception of two, which are also located in the city of Wilmington, are located in rural communities ranging in distance from 30 miles to 60 miles from the core hospital. To travel from the core hospital on a round trip, to all institutions, is a trip involving approximately 250 miles. These hospitals range in size from 30 to 135 beds. We do not have a formal, written agreement with any of these satellite facilities. Our relationships, up to now, have been based on mutual understanding of the needs that exist in teaching areas and mutual cooperation to meet these needs. Once weekly, a member of our staff visits each facility, and at that time delivers books, audiovisual tapes, as well as other written material which have been requested. This staff member also talks with the Director and/or other members of the hospital staff, taking requests, seeking advice, and generally trying hard to keep a good working relationship with each institution or agency they may be visiting. I should inject here that we have placed, at all of our satellite hospitals, audiovisual replay equipment which is compatible with our equipment, as well as audiovisual replay machines. Of course, from time to time we present live programs at our satellite institutions, which I might state include nursing homes. And each receives an announcement of all programs which are presented anywhere in southeastern North Carolina.

The Director of AHEC does have an advisory board which consists of the satellite hospital administrators, as well as the Director of Family Planning in our area. We hold Advisory Committee meetings at least quarterly. At these meetings we review our activities as well as receive input from our advisory committee as to how they feel this AHEC is performing. Also at these meetings, we receive input for additional educational programs which they feel would be of value to them, either individually or collectively. Admittedly, our advisory group is a small one, although in my opinion it has functioned very well. It is our intention to enlarge this group in the near future.

We have been asked many times: how are you sure you are receiving sufficient input from various hospitals and other health related agencies and individuals in your area. My answer to them in the beginning, as well as now, has always been that we believe the best input comes directly from the individual or organization which desires input, and to that end our staff is constantly making visits and having personal conversations with large numbers of people, including those who do not have supervisory responsibility. All requests and suggestions for programs or assistance are reviewed by me or by the Director of Education. We try very hard not to refuse any suggestion which has merit. In order to keep this kind of communication going, it is very important that every staff member recognizes that it is his or her responsibility to take the time to discuss any and all requests, at any time or any place. In their capacity as an AHEC representative, then, to make sure that an appropriate follow through is done.

Our relationship with the University of North Carolina at Wilmington, our community college, and technical institutes is generally the same as with the other health agencies. We have worked with all of them in one way or another, and our relationships seem to be good. We do not have any formal agreements with these groups except in cases where there are nursing students affiliated with hospitals, and then the agreements are directly with the hospitals involved. These institutions, however, do have educational input into the AHEC system, since the Chancellor of the University of North Carolina at Wilmington, as well as the President of the Cape Fear Technical Institute, are members of our Board.

Our relationship with the University of North Carolina is a more formal one in that there are written agreements in the form of contracts and articles of affiliation. These arrangements, though specific in some respects, are again as general in content as they can reasonably be. This, of course, has been to allow this Area Health Education Center to develop, both organizationally and directionally, where it seemed in the best interest of all concerned to do so, without undue bureaucracy or red tape. This has promoted confidence, as far as we are concerned, and has promoted acceptance among members of the medical community. Good, frequent, and honest liaison between the central AHEC and the local AHECs contributes a great deal to the development of a strong, progressive and productive system. Obviously, if the budget is done in cooperation and consultation with the central AHEC Director or his liaison person, this allows the University to approve before funding any new programs, and at the same time allows our AHEC to present proposals we feel are important for continuing education in both allied health and medical in this community. The central AHEC obviously has certain guidelines in regard to salaries, bidding procedures, purchasing, and auditing which we must adhere to. However, to keep some semblance of order and to promote generally the same administrative procedures throughout the state, these are necessary, and we do not object to them so long as the central AHEC constantly keeps in mind that they must allow their satellites to be as flexible in their operation as possible.

In summary, we have a Board of Directors which is closely aligned with the Board of Trustees of the central hospital in the Wilmington area. We have the position of Executive Director, who is administratively responsible for the overall operation of the AHEC. In addition, we have Articles of Affiliation directly with the University, but we have none with the smaller hospitals in our area.

In closing, I think that in our local AHEC three of the most important things that we have learned, which are essential in our operation, are: first, you cannot dictate or direct what kinds of education other people in your area want to have; but rather, let them tell you what they would like to have. University authorities must constantly keep that in mind. Secondly, you have to carry the mountain to Mohammad, because in our case the smaller hospitals simply do not have the personnel or the resources to come to us. Finally, you must do what you say you are going to do, when you say you are going to do it, or otherwise your credibility is lost and your program will probably be in jeopardy.

Audience Questions and Discussion

Dr. Cecil G. Sheps: May I suggest that there were at least a couple of subjects which came up this morning that we may want to discuss. One is the notion that if universities deal with communities they get contaminated, and I think it might be useful to explicate that a bit and see if there are people who think they can supply examples. And the other, quite clearly, it seems to me, depending upon what the group feels, is the whole question of faculty appointments and what they mean and what kind they are, because I would imagine this is a persistent kind of problem.

Dr. Henry S. M. Uhl, North Carolina: I would like to comment on the two points Dr. Sheps raised. Before moving to North Carolina, I devoted 7 years of my career to the strenuous effort as one of the chief administrative officers of an innovative medical school launched by Brown University in Providence, Rhode Island. This program was conceived as an integral part of the University and was, in fact, located within the Department of Biology and was then subsequently called the Division of Biomedical Sciences, as it is today. I believe this is the only program in the history of this country in which an effort was made to make medical education just another one of the educational programs of a total university whose traditions were essentially in the humanities and the liberal arts. This experiment is still in progress. None of us knows how to evaluate what we are doing. We might as well confess that immediately, even if there are representatives of HEW here who are looking forward to receiving detailed evaluations of our output. I was responsible for developing, for Brown University, its university hospital relations and for recruiting clinical faculty, and this was a most harrowing experience. We had the whole spectrum of experience with the seven hospitals that we attempted to affiliate with. These are now consummated, but in the process one 250-bed community hospital was literally destroyed as a community hospital resource and now has become the private domain of a very successful grantsman who got a large amount of dollars from the National Cancer Institute, and it has become a cancer center. Now, you can make your own judgments as to whether this was good for the community or bad for the community, but it is one way in which a university can cause a great deal of difficulty in the development of community hospital affiliations. Brown University has no university hospital. It affiliated with community hospitals.

Secondly, with regard to faculty at Brown University, there were multiple tracks that were developed, including the traditional clinical track. However, we deliberately established in the hospitals not only chiefs of services, but other full time faculty who were on the tenure track, as we are now calling it in North Carolina. I do not know what it is called elsewhere, but it means that they are full time in those departments that represent their specialty. This is now being developed in the AHEC here in North Carolina. I strongly support this development myself, partly based upon my experience in Rhode Island, and partly based upon the fact that when Harvard University, 3 or 4 years ago, tried to separate their faculty into four separate tracks they had a severe internal turmoil with the faculty. Finally, Dr. Sheps, you did refer to academic freedom as protection of truth, and I am sure this is its origin, but I would be most appreciative if you could devise some mechanism that would also protect administrators.

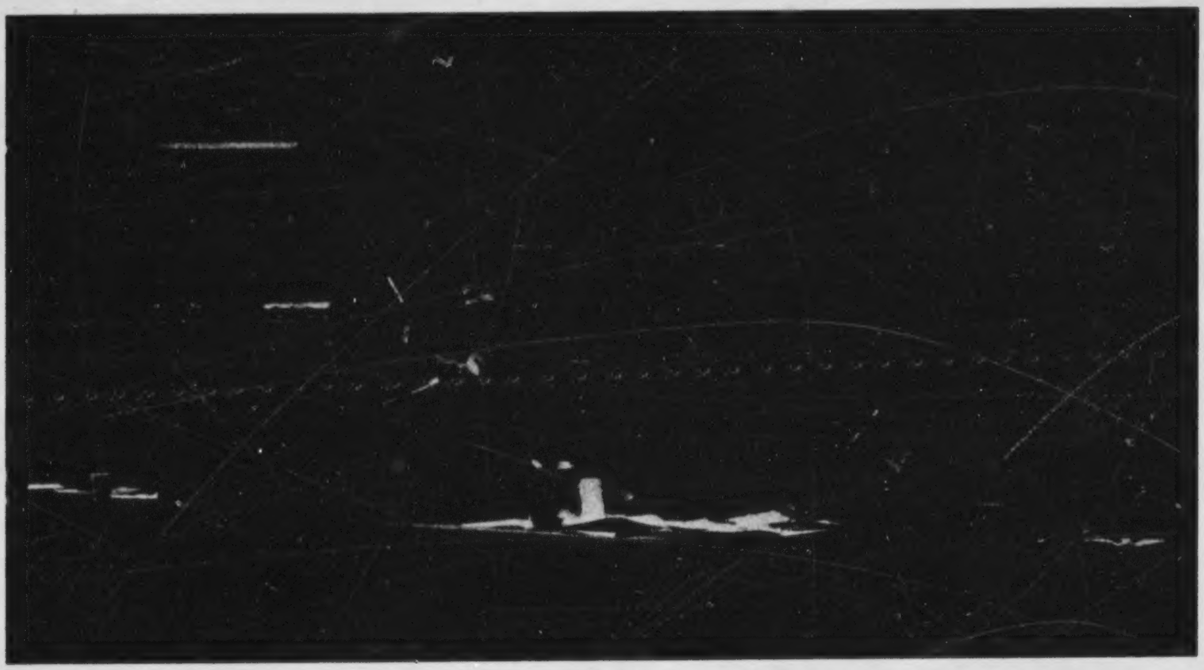
Mr. Glenn Wilson: There has been some effort in that regard at the University of North Carolina at Chapel Hill recently that Dr. Sheps has participated in, but I don't think he would like to review that. We did have a discussion this morning, and there was silence from Dr. Sheps' comments. Would you like to take the first crack at that, Dr. Sheps?

Dr. Sheps: Well, so far as the last question is concerned, you know I think it is in the essence of administration that you do not get statutory protection. You either perform or you don't, and the question is one of competence as seen by those who hire you. And I really think that while there were times when I would like to have had it, I always knew that it was not there. I think that is really inherently the case. I think the severest test of that issue was, in fact, the Watergate situation, in which an administrator for the whole nation was protected, whereas in most other democratic countries with a parliamentary system, he would have been removed within several days by his own party, after the first revelation. And I think that that is not too dramatic an example. It does illustrate the principle.

Perhaps this is the time to try to get something started by way of discussion about faculty appointments.

Mr. Gary Dunn: Could I just comment on your remarks? I think there is considerable evidence that, for whatever reason, there really is not any relationship between effectiveness and safety of administrators, especially when you are trying to work through an innovative program and especially when you have to deal with diverse elements, such as community hospitals and university faculties. If you look at the track record of the turnover of deans at schools of medicine in this country in the last 8 years you will find that what I say is essentially true. There is a certain risk that one takes by virtue of taking a leadership role in an innovative program. I think the kind of protection that seems to be reasonable for an administrator who is involved in an innovative program is the kind of protection that a university necessarily should give him, like giving him the opportunity to make a site change, if that is what it happens to be, or returning him to another level of operation, etc. But I do not think it is reasonable, or can be demonstrated, that there is really that much correlation between administrative safety and efficiency.

Mr. Wilson: It sounds to me as if this is rapidly turning into a protect the AHEC directors' movement. Let me start very specifically on an issue which Dr. Sheps and others discussed this morning. It seems to me that if universities are indeed committed to regionalization and decentralization of health professional training, that those normal rewards available to faculty, whatever they might be—and they are very scarce sometimes—should be available to teachers in the community. If



Panel #3: (from left to right) Dr. Andrews, Mr. Wilson, Mr. Dunn, Dr. Sheps, and Mr. Lovelace.

teaching in the community is of good quality, then should they have full faculty status? Should they be given what, in this state at least, is known to be second class citizenship—clinical or adjunct faculty status? Gary Dunn raised this issue this morning, and I think there are, in this room, many different perceptions of that. Should, indeed, those people who teach in AHECs be full and regular members of the faculty, on the tenure track? If they are on the tenure track, the home based faculty take a different view of that program, because they are "our" people when they are on the tenure track. They are somebody else's when they are not.

Dr. Sheps: Well, let me start by putting it very sharply. I find it helpful in thinking about this, to divide the subject into full time and part time. I think there is a tremendous difference between a full time and a part time person, so far as the university is concerned, and so far as the scholarly and academic effort is concerned. This is not to say that a part time person does not make an important contribution or one which is of the same quality as the full-time person. But it is to say that the part time person has other loyalties, other tasks, and I would then offer the suggestion that one useful way, one dimension that is important, is full time or part time.

Then, secondly, it seems to me that once people are given teaching or research or service activity that is directly related to performance of health care, and it is full time, then they ought to get regular faculty status without any prefixes to their title. The issue there is the fact that universities are not as ready as they might be to give recognition to the validity of the contributions that can be made by people whose strength is not in the laboratory and whose strength is, instead, in terms of performing and providing health care at a high standard and being interested in, and able, to teach students effectively. We have gone through some 20 years in which the expectation and the major element of judgment was the number of publications and the nature of the publications. What needs to be done now is to take seriously the fact that a person can make a contribution to the mission of the university if he or she is a good clinician and a good teacher and never makes a contribution in the laboratory, but shows competence in that area and has some analytical capacity in terms of being able to evaluate what is going on around him. Now many faculties are not quite ready for that yet, and it seems to me that that is where the problem arises. But I think that movements will take place.

In our situation, for example, in Chapel Hill, we had a committee in the Division of Health Sciences that developed a set of suggested guidelines for faculty appointments and promotion which included a lot of items of a reasonably objective nature that could be taken into consideration in evaluating the person's clinical performance and in evaluating his teaching capacity. Now some of those were too detailed, but the purpose of attempting to develop guidelines was to get our faculties in the five health science schools to begin to think about these elements and to develop ways of measuring them with reasonable objectivity so that teaching and clinical competence be rewarded, rather than putting all the faith and emphasis on research productivity.

So I am saying two things: first, it is helpful to make a distinction between part time and full time, because if you want the policy decisions of an academic and scholarly nature to be made, they need to be made, almost exclusively I think, in the internal situation by full time people whose commitment is to the university and nowhere else. And secondly, if that decision is made, what universities need to do is to do something which they are having difficulty doing—and that is to recognize an additional set of criteria that will get just as much attention as the ones we have been accustomed to in the last 20 years.

Dr. August Swanson, Washhington, D.C.: In an earlier incarnation, I was involved with the development of the WAMI program at the University of Washington and there we went off on a slightly different tack, philosophically. Rather than get involved in the issue of: would these individuals whom we were going to ask to assist us in an educational enterprise be part-time members of the faculty, clinical members of the faculty, adjunct faculty, or any of the other terms which can be used, we simply started out with the idea that we were at that point in a position of needing educational services which our facilities and our faculty could not provide, and therefore we would go out and identify individuals in the community who could respond to a request for educational services on a contract basis. We never even talked about the question of faculty appointment. We talked about what we needed, in very specific terms, and I would like to emphasize something that Dr. Sheps said earlier, about how important it is to be specific regarding the expectations of the university so that the individuals who are responding can understand and make the university understand what their expectations are.

Once we identified the individuals and told the the expectations and they responded and said, "We can provide your educational expectations," we negotiated a contract. It blew the mind of the Comptroller of the University of Washington when we said we would like to negotiate for educational services with a group of physicians out there, just the way that we might negotiate with one of the consulting firms to help us plan a new building. We are not paying them a salary. Here are the details of the contract. The contract included such things as the costs that they expected would be added to their operation, including their support personnel, and it was an annually negotiated contract, one which could be terminated at the pleasure of either party, with sufficient notice. Later on, these people have been given some sort of title, but that is not important any more. It is the fact that it is a mutually agreed upon contract to deliver an educational service which they know we cannot provide. I think that is an approach which needs serious consideration, and I think another emphasis in it is that it was with individuals who were to do the teaching, not with an institution, not with an administration, not with a board of regents.

Dr. Charles E. Andrews: Well, I do think there are several points here being discussed, and I certainly do not have a final answer or solution, but it is not just a problem in schools of medicine and AHEC. If we think in terms of the land grant tradition, and I think most of the universities involved in this are land grant institutions, their three cornered stool is, you know, teaching, service and research. I think the most important factor is that the central administration, the President's office or whatever it may be, be really serious about the service aspect of their mission and that it permeate the whole university that it is important. There are several ways it can be done. We, for example, have stated that all three of these elements are of equal importance, and that for promotion of any faculty person you have to show excellence in at least two of them, so that a person can become a full professor at West Virginia University and never publish a paper, but he has to show excellence in the service aspect.

The problem then gets to be how you define service. You see on promotion requests, "He became president of the local PTA," as a service function. Well, this is obviously absurd in this context. But I think there are ways it can be evaluated and emphasized in the university reward system and make it work. There is another variation of this problem that we are currently struggling with, and that is faculty appointments for members of the Extension Service. How should they be recognized if you really believe that the service function of a university is important. I think that after 6 years of debate and discussion we are finally coming up with a solution—at least a temporary solution—to the problem.

Now, as to the specific problem of AHEC and clinical appointments, I am not sure our solution is a good one or a permanent one, but it seems to be working at least reasonably well at the present time in that the faculty has established several criteria for clinical appointments, such as: he is a competent clinician in his field and shows evidence of this;

or, he is involved in the teaching program; he is involved in the continuing education program, etc. The appointments are made according to these criteria, and then each year, as our regular university faculty appointments are reviewed, so are these, and matched against the criteria, should they be continued, and this sort of thing. The other thing I think has been useful in implementing this is that if a physician in Charleston wants to be a full time professor of medicine he has to go all the way. We have a very rigidly controlled private practice plan. He will be on a salary. All of his income has to come through this mechanism, etc. Most of our people understand this difference, I think, and they are at least not unhappy and do not feel they are second class citizens with their clinical appointment.

I like the title adjunct professor better, and maybe it just hides more, but this is the title we use in the rest of the university, except for the school of medicine, for these kinds of people. Clinical also has the connotation, in many schools, that you don't pay them for anything, and I see nothing wrong with someone who gives a great deal of service being paid a salary, and "adjunct", at least in our system, cleans this up a little bit and you can get it through the comptroller with this title. I do not know if there are any solutions which work everywhere, and I think you sort of have to pick and choose the one that will fit your situation.

Dr. Sheps: Glenn, you mentioned rewards of faculty status. You know, let's examine that. What are the rewards? The financial ones are nothing compared with the rewards of practice. So what you have is prestige and recognition. Now, what I am saying is that if someone is asked to serve on a full time basis, teaching and service, then if he does not get full time regular status and get into the tenure stream, the university is not serious about the whole program. That is really a test for the university. But, you see, it is quite different, it seems to me, for the part time people, who can be just as competent, because there is the problem of governing the university. Universities think of themselves as self governing. The strength of the faculty is very important, and if we are going to remain in the university, and not set up separate universities, you have the understandable concern on the part of the professor of English, or the professor of economics, who would see a whole series of part-time people in their own community, or outside of it, who could then come into the university and be voting members. And that is really what the issue is.

You know, there is nothing wrong with being a part-time faculty member, but it does not mean that in the eyes of the faculties of universities in general that that qualifies that individual to participate in the decision making regarding the policies of the university as a whole. Now, the role that is played by such individuals in a department of medicine or family practice medicine or pediatrics or in a school of nursing, etc., is dependent upon how that school wants to function. If that department is serious about the AHEC program, they are cutting off their noses to spite their faces if they don't involve those people in the exploration of problems and the development of policy, etc. But to give an increasing number of part time people, who are not really part of the full time academic community, full voting status and tenure on a university faculty is, in the eyes of faculty generally, really not warranted.

Mr. Wilson: Dr. Sheps, I think you just said my view of this well. I never would quarrel over the part time, but I do not believe that AHEC will be a real part of the university, and as you said, they are not serious, if the full time people are not given faculty status.

Mr. Dunn: I think, in academic life, for any number of years, when we listen to this discussion we are a little bit amused. The reason we are amused is that to a great extent we have not cleaned our own house. We have not really laid down the law with regard to criteria for evaluation. We do not do much evaluation, and when we do evaluate, we don't do much with it when we are through. Now other people see this. I think this problem would lessen somewhat if we did follow a hard line in evaluating faculties, in light of what it is the university is trying to do, and if we did make decisions relative to whether or not the contribution was significant.

The truth of the matter is that this is controversial, because some have suggested that something like 15 percent of the faculty carry the school, although I think that would be extreme. Now maybe we have had bad experiences. All I am really saying is we are really interested now because we are faced with the problem of whether we are going to let these people in or not. Are we then also going to take the next step, which is to apply the same kind of rigorous standards of inspection to the existing community? What do you intend to apply to them? I have not heard anybody advocate that at this point, and I would like to hear some comment about it. Why, all of a sudden, are we going to get rigorous with the community faculty, whom we need desperately, when we have let people sit around for years at the university and have taken very little action. If somebody wants to speak to that, I would love to hear them.

Mr. Wilson: Who would like to respond to that challenge?

Dr. Swanson: Gary, I think one of the things you have to consider is the possibility that those people whom you are now talking about bringing into the academic community might well, twenty years from now, be described just as you are describing the people who were brought in 20 years ago.

Mr. Dunn: We have to take the risk, though.

Dr. Swanson: Well, maybe we need to look at the whole issue of how to get universities into communities. What I think I am hearing is that what we ought to do is just to continue to do business in the same way we have in the past, and that is, we go out and identify people, we make a bigger university with larger geographical boundaries, but we play by the same rules. And those rules have always frozen us, have tended to produce rigidity within the university system. I think if the universities really do expect, in the future, to do a fair amount of their educational activities out in communities, they have to expect that the needs will change from time to time and that whereas today it is primary care and education in the community for primary care, 15 years from now it might not be.

Maybe we need to look at some sort of governance contractual system, alluding back to what I said a few moments ago, which will keep us flexible and which will allow people who can provide educational services, for a transient period, to be very valuable and to be rewarded appropriately and then, as those needs diminish, somebody else is going to come along and provide the services we will need then. In fact, this would be a good model for the entire university and would get us out of some of the problems we have in law, in the social sciences from the standpoint of interacting with community agencies, I believe.

Mr. Wilson: I think you just touched on the issue. We have, it seems to me, a terrible corruption of tenure, which was presumed to protect the freedom of ideas and speech. It has now become a quasi-civil service guaranteed job, and if we could get over that hurdle, then we could change some of these circumstances. I think that is at the heart of the matter.

Dr. Swanson: It *is* the heart of the matter, and of course, I think one of the reasons it has become such an acute matter now is that whereas previously the rate of change, the rate of demand for change, was approximately the same, and it provided a periodicity which was approximately that of the normal lifetime of an individual on a faculty, it is now getting down to a quarter of a lifetime, and therefore faculties and universities are finding themselves having to respond to things on a periodicity which is so short that the faculty they bring on board and provide with the normal, traditional perquisites are no longer useful when the need for the next change comes. And I think this is one of the reasons why serious examination is being given to the whole issue of tenure in many, many universities at the present time.

Dr. Sheps: I think this question, the issue that Dr. Swanson has been referring to, can be described in several ways. One of them is, of course, the whole question of standards and performance at high standards. And in the tenure situation, it is not uncommon to have people who have met standards at an earlier time who no longer continue to meet them, but we are stuck with them. This is exactly the attitude—we are stuck with them. Nothing gets done about it, and I do not think it is possible to do anything about it until we make the kind of change that Mr. Wilson has recommended. But I think when it comes to the AHEC activity, the problem again is that we do not know as much as we would like to know about how to evaluate the teaching capacity and clinical performance. We think we know more—I am choosing my words carefully—we think we know more about how to evaluate research productivity, although I have seen people evaluate it just by running their eyes quickly down a list of publications without even bothering to read their titles, let alone read the papers. Nevertheless, we make the assumption that we know how to evaluate that. We do not know as much about evaluating clinical performance and teaching capacity. And this is what part of the issue is. We simply have to move on this and then say to our colleagues in the heart of the ivy covered campus that AHEC faculty in their way, are just as good as others, and therefore they make it.

Now, there is one special circumstance regarding AHEC that I think we ought to recognize. By and large, when a university or any part of the university, really, when a medical school or a school of nursing, or a school of dentistry wants a faculty member, they recruit nationally. This is a question of migration; they will take the best people they can get. And the better schools always take a national view. When you are dealing with AHEC you are starting with the professional people who are there, and you want to use them, and you ought to use them and get them involved. Therefore, I think it is important to recognize that one does not always have the full range of choice, even if we knew reliably how to evaluate capacity, and some of us do it intuitively and we think that most of the time we are right. But even if we knew how to do it, the size of the pool is very much smaller, because if you are working in Charlotte, you are working in Charlotte; if you are working in Asheville, you are limited to the people there, not for the full time people so much, because there we have found, for example, that sometimes we have been able to get the right person who is there, and sometimes we have recruited him. I would like to see progress, but I think we need to recognize the reality on this particular aspect. It does present a problem on occasion, and yet we have to do something.

Dr. Swanson: May I make just one comment? I agree that the pool for an AHEC is smaller than the national pool, but it seems to me that even within the pool that an AHEC's territory encompasses, there will be a variety of abilities, a variety of degrees of willingness to become engaged with an AHEC, and it is up to the AHEC, then, to figure out ways of selecting individuals, much the same as when we do it at the national level, and to make sure that you select the individuals who are of the quality that you need.

Dr. Lawrence H. Miike, Washington, D.C.: This is fast becoming a discussion on AAMC issues. I would like to get away from some faculty discussion issues and change the subject from faculty tenure types of issues. My question is directed mainly at Dr. Andrews. You brought up the issue of legal authorities and technical authorities, and Dr. Sheps had mentioned that most of the changes that come in academic institutions come from the outside. Dr. Andrews, in the context of the physician assistant regulations, would you say these have constricted the scope of the kinds of health care models, health care teams, health care delivery types of situations that are possible now in West Virginia? What role should the academic institutions play when outside forces try to restrict the innovations that are going on in education today?

Dr. Andrews: You are asking me the general question, how active, politically, a university should be? I think the members of a university community can be very active as individuals, but I am not sure that a university, as an institution, at least a state land grant institution, is very effective for this kind of change. I think we do better as individuals. Knowing the right legislator to talk to, the member of the state licensure board who is involved, and then trying through our expertise in the situation to change it. Unfortunately, these decisions are not usually made on the basis of the best knowledge. They are political issues that are in response to a pressure group or what the people perceive that they need.

Mr. Wilson: Dr. Andrews, let me recast Dr. Miike's question the other way around. We have not had problems from the universities in the past in saying what was good in primary education, as a matter of public policy. Is there no role for the university to declare itself on public policy issues on health personnel, as an institution rather than as an individual?

Dr. Andrews: Well, it gets at something which I think Cecil mentioned earlier today, what is the truth? Today's truth won't be tomorrow's truth in the matter, and assuredly I think you can take the best stance today, and make your point, but you have to realize that there will be other opinions on the same subject, tomorrow, which may be right.

Mr. Wilson: But we do assert that fluoridation is good. Some people dispute that. But we have made public policies and institutions have taken a stand on other kinds of issues that we are comfortable with. Is it not now time for us to enter the political arena on public policy questions of health personnel?

Dr. Andrews: Oh, I think we are in it—probably more than we would like to be.

Mr. Dunn: Well, you know, I think that if you followed your line of thinking to its logical conclusion, you would never take a stand on anything. It seems to me the university has a vested interest and should go to the source where it can be serviced. I do not understand why universities should not take hard line positions when it affects the very integrity of what they are all about. They just had a recent experience, as an example, in the state of Washington, where they fired 4,000 school teachers, closed 26 elementary schools, etc. And one of the reasons, I think, that they were able to get away with it, was that the superintendent of the schools and his staff felt as though it wasn't within their purview to lobby and put pressure on the state legislature, or any other kind of pressure group, to give them the resources they needed to do the job. I think as priorities become more valuable to us, as we deplete our resources and we have to make selections, the university is going to have to get very aggressive. I do not agree with going and seeing people in a quiet manner and trying to exert some pressure. The university should speak for the things that it feels strongly about. Even if it is wrong it is better than not doing anything.

Mr. Wilson: Did you want to say something, Dr. Sheps?

Dr. Sheps: Well, I have lots to say about it, but I do not want to dominate the discussion. We have a marvelous example of this in North Carolina and it is true in other states, too, in the area of dentistry, where the dental examining boards are, in fact, setting up barriers to prevent the dental schools from doing what they know they ought to be doing, and so far, the discussion has been very quiet and behind closed doors, amongst friends and colleagues. My view is that it will never be solved until the public understands it.

Emmett R. Costich, Kentucky: I think Dr. Andrews mentioned that many of the schools represented here are land grant schools. Looking at what they have done over a period of years through their county extension agents, home demonstration workers, and such, the colleges of agriculture and home economics are a political action group which works throughout the state, with a widespread base for operation. I think the models they have used over the years are ones that we could look at as we try to do our work. I think they have also adapted to changes as they have gone along; from looking after the small man they have gone into looking after agri-business, where the big money is, and where they can pull funds back in. Just as you can attack a drug company, you can go after a feed company and bring support into your organization. I think their approach to appointment of people to their faculties—one of using the adjunct series for people who get paid, and using the title of clinical for those who do not get paid, and using Dr. Swanson's approach of really looking after what it is that you want to do, and then contracting for that service, to get to mixing a variety of these things, will work for solutions in the regional area.

We have divided our states, and we have divided the nation, on a regional basis, and I think that within each of the institutions that is involved in the AHEC concept, each has their own regional problems to face up to. However, I think the agriculture model is a pretty good one. It has also been flexible in that as the agriculture population of the country decreased, and they had to look for a base for influence, they began to look at the quality of life in the rural areas. Legislation brought money to improve the quality of life, which brought them into the area of the health fields and into waste disposal, sewerage and water supply, etc. So that in this region there are good contacts which can be made that can be very helpful in the supportive programs that you want to do.

Touching on an issue in dental education, I think some schools have taken a stand on things. One school I am familiar with took on a program which encroached on some things which dentists have considered sacred unto themselves. Pressure was brought to try to close the thing down with subpoenas, injunctions, etc. But it stopped when the university took a very strong stand and said, "You try to push us around and we will push back." And, at the present time, there is a standoff and the program continues.

I think all of the things we have touched on have been solved in a variety of ways in a number of different places. I think this kind of forum gives a chance for every body to get at them. Dr. Andrews' people in West Virginia set some great models for us in Kentucky, as we have begun to go ahead with our things, and we looked pretty hard at all the things they were doing, through co-op extension, the programs they put out in the hollows with the medical, dental and nursing students, some of the reports that were done there, and they really stimulated us for some of the things we are doing. So, maybe you can look at co-op extension.

Mr. Don Arnwine, West Virginia: I would appreciate some comments from the panel, or from anyone else here, as to the role that the affiliated hospitals should play in the governance of the AHECs. Mr. Lovelace made some comments about how they operated this in their particular AHEC, but there has been no other mention of that role. I note that, if I interpreted the roster properly, that I am the only chief executive officer of an affiliated hospital, and it is kind of lonely here. I would appreciate some comments as to what role, appropriate role in governance, the chief executive officers of the affiliated hospitals should play.

Mr. Wilson: Don, it is not quite that lonely. There are several chief executive officers of our AHECs here, but they are not necessarily of the hospital.

Mr. Dewey Lovelace: I will make a couple of comments, if I may. I think that as far as a community is concerned, it is essential, in my judgment, for the directors of the hospitals concerned to be very much involved in the decision making of Area Health Education Centers in their communities. If they are not, the attempts to get new programs and the attempts to carry on other programs are going to be very difficult, because the chief administrators of the hospitals, in a rural area, have a lot to say as it relates to the medical community and to the executive committee of medical staffs, etc. And these physicians, if you are speaking now strictly of medical education—of course, there are many other aspects of AHEC—will tend to locate in rural areas if hospital administrators, through AHEC, can develop the kind of environment that is so necessary to really give good patient care. So, I think it is important also to remember that we have to work in all the areas, and try to upgrade and bring into the community all levels of health care workers to support the physician in what he is trying to do. I do think it is imperative that the chief administrative officers of the hospitals have a great deal in what goes on in communities.

Mr. Daniel Smith, Washington, D.C.: I would be interested to hear from anyone in the room or on the panel the experience, positive or negative, they have had with consumerism in the AHEC program. And whenever you talk about the consumer, I would appreciate if you would explain what the consumer is, and how one views the consumer.

Mr. Wilson: We are waiting for you to define what a consumer is, Dan. Who would like to talk about the role of the consumer?

Dr. Andrews: Well, I think my original, first and only major argument with Mr. Smith has been on this very subject, when we were asked to set up an advisory board or an advisory council for AHEC. I do not believe in establishing boards unless they have a function and a role in the thing, and I have still not heard Dan or his group define for me exactly what their role should be. We do have an advisory board, and there are consumers, I suppose, on the board. They represent some patients in the target area, I suppose. They have been patients in the area. More of the board, I think, are providers in the area in the sense that they represent educational institutions or other health care institutions. We do have a section on consumer education, as part of our AHEC, and I think we get a great deal of feedback from the community as to how well we are doing in this regard. I am personally very concerned that we keep adding to these kinds of boards and to everything that we do. If you think for a minute, in West Virginia we have about 100 consumers that meet every year to review our programs, called the legislature. In addition, we have a consumer board called the board of regents, of about nine people, that have plenty to say about it. In addition, each school and college has an advisory board of consumers and what not. We have a board of trustees of the hospital that we work with. There is a school board in Charleston that regulates that. I personally feel that we have plenty of consumer input as to how we are doing in our particular programs.

Mr. Wilson: We have lots of advisory committees and exactly the same problems as Dr. Andrews. Mr. Smith, I understand there is a meeting starting tomorrow in Chicago that would take the approach you suggest, that we have a consumer board with the money, leaving the responsibility on the academic health science centers. It has a remarkable similarity to what I think Dr. Sheps said, very appropriately, that if you have clear accountability and you can measure the response by some device, that to dangle a bag of money before the academic health science centers, they will take that part which is convenient and comfortable and ignore that part which is difficult. We have not figured out a very appropriate role in North Carolina for consumers or advisory groups. We have them. We are listening to them. I would prefer very much Mr. Lovelace's approach, where you are actively engaged with your community and you listen. I would suggest to Dr. Sheps that our university has courses in public speaking and all kinds of other ways to write. We need a course in listening. We think that our AHECs are doing a pretty good job of listening to the people out there, and that they beat having another group that will meet from time to time to get another agenda.

Dr. Sheps: May I make a comment about this? Just a few days ago, I was thinking about this question of providers and consumers, in another context, and it occurred to me that this is really not a useful formulation in health care. If you were talking about oil, it is very clear there are people who control and there are people who buy. The people who buy do not have much choice as to price, but at least they have some choice as to location. But the notion of providers and consumers does not apply to health care very much. The consumer does not really have very much control or choice about very much, except to the extent to which he is represented on the governing board of the institutions. You have very highly institutionalized structures, you certainly do not have a free market, and in many instances it is in fact the provider, not the consumer, who is deciding what the consumer is going to choose. The consumer does not make the choice. I am rapidly coming to the conclusion that I am not going to use those terms anymore. In addition to the fact that the word "consumer" really does not apply in a simplistic standard way of economics in a capitalistic economy, I think that it additionally produces the kind of problem that Glenn Wilson has referred to, and that is, who is the consumer? The experience we have had in the last 8 or 10 years has identified, in most instances, the consumer with people from certain population groups who have been more obviously disadvantaged and discriminated against—and that, of course, is appropriate. But it is not the entire story, and if we have a problem here, and I think we have, the problem relates to the public control of our existing institutions. I do not think that setting up other bodies is the long term solution to this problem, and it may complicate it even more. At the same time, look at the boards of community hospitals. I have difficulty forgetting the remark that Rufus Rohm, that great leader in the hospital field, who is still alive and vigorous at the age of 81, an original member of the staff of the Committee on the Cost of Medical Care 43 years ago, made, that in voluntary hospitals the trustees run the errands and the hospitals are run by the medical staff. Now maybe that is a bit strong, but the trustees that were there to give a stamp of approval, to raise some money, in the last 5 or 10 years, as the problems became more severe, and as communities became more expressive, have begun to do more. I think that the word "consumer" has little meaning unless one is very clear about what it is. In the long run, I think it means that certainly those who are the most disadvantaged need to be sure that their views and problems are understood. But the problem is one of appropriate responsiveness in every institution, and setting up yet another body really does not go to the heart of the matter. The heart of the matter is to go to each one of these institutions and make them maximally responsive. And, in fact, in many ways, the AHEC activities, I think, are doing that.

Dr. Theodore R. Reiff, North Dakota: I would like to reinforce Dr. Sheps' comments on consumerism. I always used to be a little bit amused when the capitalist or the market philosophy was pushed on the physician, posting prices and such. Now, I have nothing against openness in fees. I think these things should be known. However, I imagined the day when the patient would come in and look at the list of prices, and the physician would be able to say, "Well, today—let's see—I have Grade A, Grade B, and Grade C care—and there is a 'special' on B." Is this really what the so-called consumer wants, or does he expect the physician to give the optimal and the best care that he knows how to give, and expect no less? I expect that that is what he really wants. And, in fact, the optimal role would be to have the professional care always delivered at the highest service by the individual profession, and he should refuse to do any less. Now, I am not saying that one does not have to set priorities in emergency situations, and such, but I think that it is about time that someone spoke up for optimal quality of care, by the individual professional, and not have him compromised on the basis of some of the cliches of the market.

Dr. William H. Wiese, New Mexico: I would like to respond to Mr. Smith's question and Dr. Sheps' response. I think the point Dr. Sheps made was excellent. In a monopolistic situation, which so often the university has the pleasure of finding itself in, there must be some mechanism for accountability to the consumer, whoever that may be. The difficulty is, of course, in finding someone who can represent the consumer. In trying to implement our AHEC, we have struggled with this. We have looked for mechanisms, advisory boards, none of which have been perfect, but several of which have been very useful. Our mechanisms do not include consumers in the sense of patients covered with bandages who generally are not in the best position to articulate the point of view of people needing health care, but there are surrogates, there are representatives, there are mechanisms for developing this accountability, and we feel and believe that this is an extremely important part of our AHEC. This dimension of participation must come in. The difficulty arises in trying to integrate this important dimension with the contract process through which we must operate in developing the AHEC. There is mechanism for change in the AHEC—the contract. The mechanism is, however, very cumbersome, and I fully concur with Mr. Lovelace's comments that there must be elbow room.

Panel 4

The AHEC and Regional Educational and Health Services Institutions

Moderator: Dr. T.F. Zimmerman
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Panelists: Dr. Bryant Galusha
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Charlotte (N.C.) AHEC

Dr. James McGill
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Introduction

Dr. T. F. Zimmerman

This panel focuses upon the "AHEC and other institutions," particularly those other institutions who participate in the education of physicians, nurses, the spectrum of allied health professionals, and others. Health professionals are multi-institutional products; no single institution can independently provide the range of experiences and resources required to produce qualified practitioners. If we agree that the future of health care delivery rests in the abilities of real persons, with complimentary skills, to interact through a complex variety of socio-economic and socio-technical teams, we must assume that the future of health education is dependent upon the ability of artificial persons—e.g., educational and clinical institutions—to share complimentary resources and responsibilities through a complex variety of stable, inter-institutional networks. The AHEC initiative is explicit in addressing the necessity of inter-institutional systems. A review of public policies and interests indicates that it is to their enlightened self-interests that institutions seek avenues for collaboration, particularly in the production of health manpower.

In Illinois, we use the term "Area Health Education System" rather than "Center" to emphasize the cooperative nature of the contract. Our target group is four district Illinois areas brings the University in contact with 48 hospitals and 53 academic institutions. Annually, health education is provided through the University and other institutions to 4,952 allied health, 5,618 nursing, 1,036 undergraduate medical, and 155 family practice residents. In Illinois, as in other settings, the "numbers" speak to the potential for interlocking institutions and mobilizing resources in common directions. At the same time, the number of institutions involved presents obvious problems. The development of a successful inter-institutional system demands a willingness on the part of each institution to commit itself to and identify with transitional roles, missions, and functions. The institutional "ego" is every bit as real as the individual ego. Institutions, with their artificial personalities, find it just as difficult to cooperate and collaborate as do people with real personalities.

The AHEC brings an added dimension to the problem of inter-institutional cooperation. It is in the initiative of the University and, in working with community institutions, one often encounters some apprehension and distrust of the University's leadership role. In Illinois, we talk about the "orange truck syndrome"—on some dark night a semi-trailer painted with the University's colors of orange and blue will back up to the community institution, pack up all of its programs, and take them away to some University "center." This apprehension is not totally neurotic or unfounded. The behavior of universities to community institutions in the past has given cause for some apprehension, and the burden of proof in assuring the motives of the University in fulfilling its AHEC mission clearly rests with the University itself. AHEC contracts are rooted in the University, its medical centers, and its medical schools. It is important to remember, however, that the AHEC is an attempt to expand the health professions in cooperation with multiple and diverse community institutions.

Our interest, in this panel and throughout this conference, has been to consider some specific issues and dimensions of the AHEC and attempt to extract some alternatives and solutions. The panel participants—Dr. Bryant Galusha, Dr. James McGill, and Dr. Karl Jacobs—will consider issues in inter-institutional efforts from the varying perspectives of the community hospital, the State regulatory agencies, and the comprehensive community college. Each has been encouraged to be candid in discussing issues and problems as they see them. It is extremely important in developing inter-institutional efforts to confront and openly discuss problems as they occur. Through this panel, we hope to provide a discussion of the inter-institutional impacts and dimensions of the AHEC initiative which will be constructive and instructive for all involved.

Panel Presentation #1

Dr. Bryant Galusha

My task today is threefold. First, to describe and give you an overview of the AHEC based in Charlotte, North Carolina. Secondly, to run through the organizational table of our AHEC, and thirdly, to give specific examples of inter-institutional and health agency linkages that we have established as goal attaining structures.

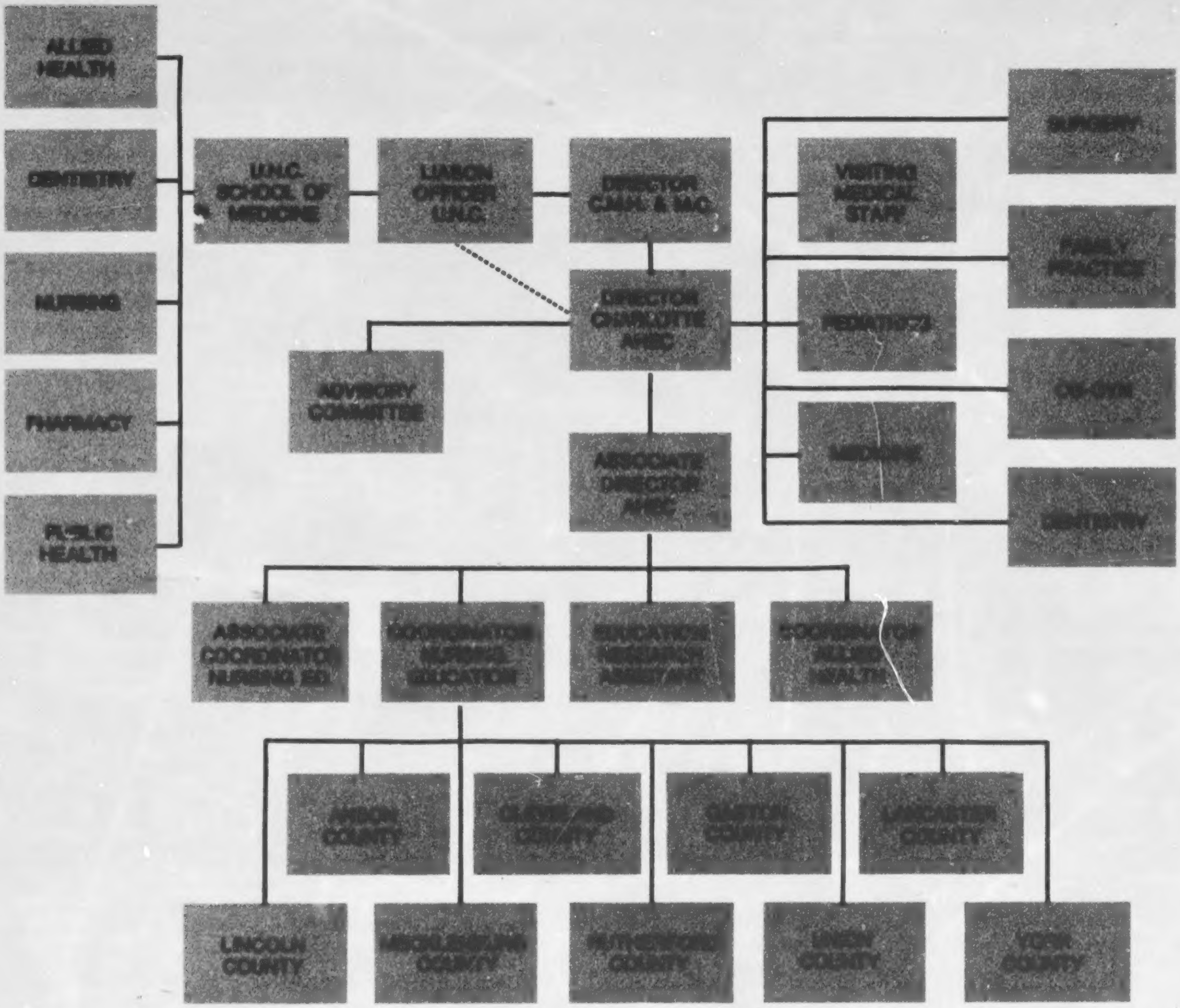
The hub of the Charlotte AHEC is the Charlotte Memorial Hospital, an 830 bed, acute care, general hospital. It is not only an excellent medical care center; it is a center of medical education. Two days ago when I left to come to this conference, there were 14 North Carolina junior and senior medical students receiving a significant portion of their clinical training in this hospital. The institution runs a variety of health manpower training programs for nurses, nurse anesthetists, radiologic technologists, laboratory technologists, hospital administrators, etc.

As an AHEC center we are responsible to and work in concert with the University of North Carolina Health Science Center. In accepting the title and the privileges of being an AHEC hospital, we have accepted the responsibility of health manpower education for our designated area, which is a nine county area, seven in North Carolina and two in South Carolina. We have crossed State lines and it is working well.

In our region we have health manpower problems, not only in sheer quantity, but in distribution as well. To illustrate this best, Charlotte is in Mecklenburg County which has one physician per 790 people, not bad by the national average. However, also in our designated area are Gaston County, with one physician per 1,700 people, Lincoln County with one physician per 2,200 people, Union County with one physician per 2,700 people, and Anson County with one physician per 4,000 people. Similarly, with dentists, in Mecklenburg County we are about at the national average, but have only one dentist per 3,400 people in Lincoln County, one dentist per 4,800 in Union County, and one dentist per 8,000 in Anson County. In fact, there are only three dentists in the whole of Anson County, which has a population of close to 25,000 people. So, we have health manpower problems, and as you have heard many, many times, the function of our AHEC is to improve the quantity, the quality, the distribution, the efficiency and effectiveness of *all* health manpower in our region.

Now, let me turn to the organizational structure of our programs, shown in Figure 1. The top left of this figure shows what we call central AHEC: the University of North Carolina Schools of Medicine, Public Health, Pharmacy, Nursing, Dentistry, and the Division of Allied Health. This is our resource and we use it, and I think we use it effectively. For those of you organizationally minded, each of our North Carolina AHECs has a director in the community and a liaison officer at the University. I, as Director of the Charlotte AHEC, can plug in directly with the total University Health Science Center through our liaison. Figure 1 also depicts our human resources who are either partly or fully paid through AHEC funds, State or Federal or local. The exception to this is our visiting medical staff. The visiting medical staff are quite important to the success of the educational programs at the Charlotte Memorial Hospital. They are a cadre of 275 dedicated physicians, willing to give of their time and talents without *financial* remuneration. However, they do get another kind of remuneration: their reward is their own continuing medical education through their active participation in graduate or undergraduate medical education. They also take

Figure 1: Organizational Structure of the North Carolina AHEC Program


ALLIED HEALTH
DENTISTRY
NURSING
PHARMACY
PUBLIC HEALTH
U.N.C. SCHOOL OF MEDICINE
LIAISON OFFICER U.N.C.
DIRECTOR C.M.H. & M.C.
VISITING MEDICAL STAFF
SURGERY
FAMILY PRACTICE
DIRECTOR CHARLOTTE AHEC
ADVISORY COMMITTEE
PEDIATRICS
OB-GYN
MEDICINE
DENTISTRY
ASSOCIATE DIRECTOR AHEC
ASSOCIATE COORDINATOR NURSING ED.
COORDINATOR NURSING EDUCATION
EDUCATION RESEARCH ASSISTANT
COORDINATOR ALLIED HEALTH
ANSON COUNTY
CLEVELAND COUNTY
GASTON COUNTY
LANCASTER COUNTY
LINCOLN COUNTY
MECKLENBURG COUNTY
RUTHERFORD COUNTY
UNION COUNTY
YORK COUNTY

pride in knowing they are helping their community, their State, and their future colleagues.

I, as Charlotte AHEC Director, have an Associate Director, two Educational Coordinators in Nursing, an Educational Research Assistant, one Coordinator for Allied Health, and a small secretarial staff; we have two full time faculty members in Pediatrics, Medicine, Family Practice, and Obstetrics-Gynecology. We have one faculty member in Surgery, and one-half in Dentistry. Putting this together, the University Health Science Center, our human resources in Charlotte and the resources of our nine counties form a partnership. Dr. Sheps dwelled on the problem of having junior partners, senior partners, or third partners. Our arrangement is an equal partnership. The University is essential and, in fact, we think it is just as good as we are! That is the kind of partnership we have. This partnership is helping our State train medical students. It is helping our State to transcend the problems of limited clinical and human resources by enlarging and enhancing the enrollment of medical students and other health personnel.

Figure 1 also shows something that has been touched on by Dr. Gordon and others, the counties we serve. Our main challenge, now, is to make certain that we make these communities attractive enough to recruit and retain health manpower. This idea has been well accepted in our area since not one of these counties has not gone the route of a pocketful of money and a professional head hunter in trying to get a doctor. Although our communities know that education is not the entire answer they recognize they must try to eliminate professional isolation. I can say with reasonable confidence that medical students and people who finish our residencies are not going to places where there is professional isolationism. I won't advise they go and I don't care what kind of carrot you put out there, they shouldn't be sent. That is unless the carrot is good facilities and support personnel where physicians can practice up to their learned skills. The carrot must also include close ties with an educational center like AHEC. Now we don't have any money in AHEC to build country clubs and swimming pools, but we can start by making the resources available to attract health manpower. That is not a bad place to start because after you get good educational opportunities for health personnel it is amazing what comes after it. This is our goal and this is where we are putting the emphasis.

Now, I was asked to give examples of linkages, and you will see many of these linkages are aimed at making these communities more attractive. Let me try to demonstrate some of the actual linkages by using Figure 2. At the top of this figure is the North Carolina AHEC system, basically, the University Health Science Center. Nevertheless, there is a team spirit in North Carolina and I prefer to refer to the whole AHEC system, not just the Health Science Center at the University. My staff has been in other AHEC areas and I have borrowed people from the other AHECs in North Carolina to help me in my programs. So, the top block of this figure is truly the resource of the North Carolina AHEC system. The educational institutions segment includes technical institutes, community colleges, and private colleges. Governmental agencies include county and local officials as well as public health agencies in our AHEC area. The private sector involves private doctors, private nurses, private organizations, community agencies, voluntary health associations, nursing homes, and other hospitals.

Now let's consider some linkages. Figure 3 shows a simple linkage from Winthrop College to the Charlotte AHEC and the Charlotte Memorial Hospital. After a formal study indicated that we needed more registered dieticians in our AHEC area, the faculty in the food and nutrition area of the Department of Home Economics at Winthrop

Figure 2: Model of Potential Linkages Within the Charlotte AHEC

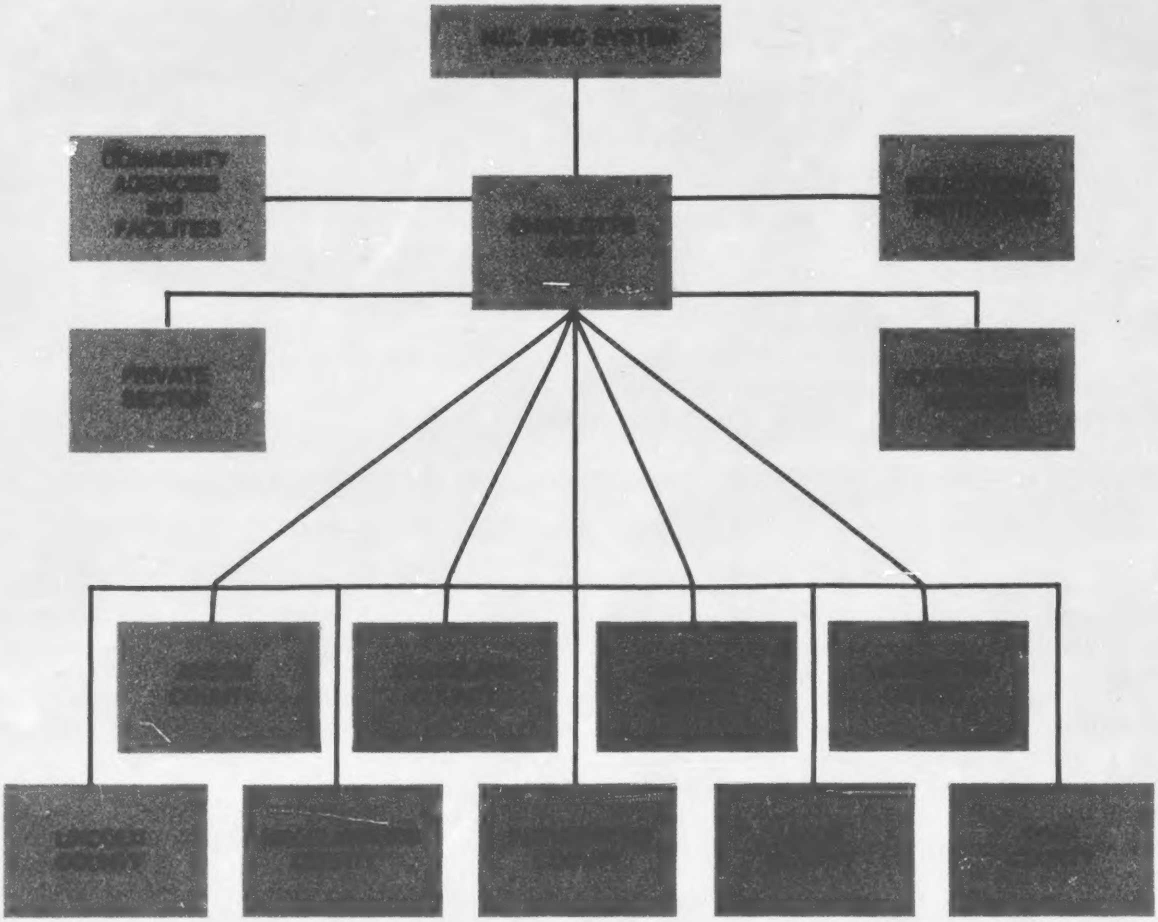
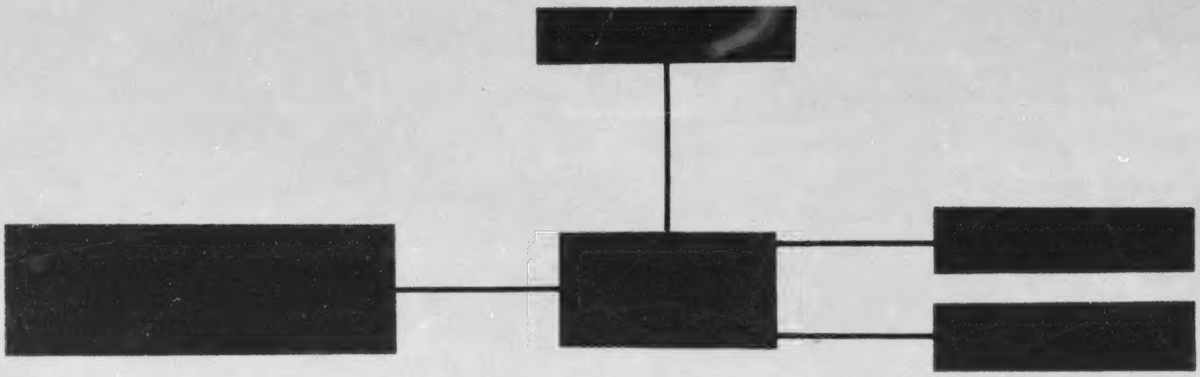


Figure 3: Undergraduate Program in Dietetics



College, a South Carolina college across the state line was put in contact with the Department of Dietetics at the Charlotte Memorial Hospital and jointly they designed plans and structured a program that was approved by the American Dietetics Association leading to a baccalaureate degree in food and nutrition. This has worked amazingly well and we made this program fit the needs in our area. For example, we incorporated the dietetic internship into this program. We did not want the people finishing this program to go off and take a free standing dietetics internship in Chicago. They might not come home. So we incorporated it into the program, saving a year for the student while allowing them to finish their education in our area. We also introduced the students relatively early to clinical dietetics. We thought this would make it more fun and encourage more depth of learning. They could take the principles and theories from the classroom early and consider them in the clinical setting. It has worked well. This is an example of a simple linkage, simple in that only two institutions are involved. Nevertheless, although it looks simple it was difficult to accomplish. Four of our dietetics staff at Charlotte Memorial Hospital now have adjunct professorships at Winthrop College through this program.

There are other linkages in short term clinical experiences. Figure 4 demonstrates linkages that developed when a small hospital in rural Anson County asked us to help expand and increase the efficiency of their laboratory staff. This program was organized through the allied health coordinator on the Charlotte AHEC staff. We got Charlotte Memorial's laboratory personnel to Anson County within 3 weeks, helped the community staff set up objectives, and in 2 months had the Anson County lab personnel rotating through microbiology, blood banking and special hematology at the AHEC hospital. To monitor this program in a continuing manner a team of private pathologists from Charlotte goes to Anson County at two week intervals and evaluates the performance of the community personnel while continually updating their continuing education. We also have these people coming back at periodic intervals. This is the form of one linkage with one of our hospitals in allied health.

Figure 5 is an example of another linkage that is most meaningful to us. It represents short term clinical programs in nursing. Here we have responded to the request of all of our area hospitals. Selected nurses are taken in to Charlotte for specialized training in special fields, for example, coronary care, surgery, and intensive care. In Anson County, they were adding an obstetrics suite with a small intensive care neonatal unit. One individual came to Charlotte Memorial Hospital, spent a week in our Obstetrics intensive care unit and returned to Anson County. The hospital in Cleveland County, 55 miles away, was opening a surgical intensive care unit. The designated head nurse spent a week at the

Figure 4: Short Term Clinical Experience in Allied Health (ex. Laboratory Personnel)

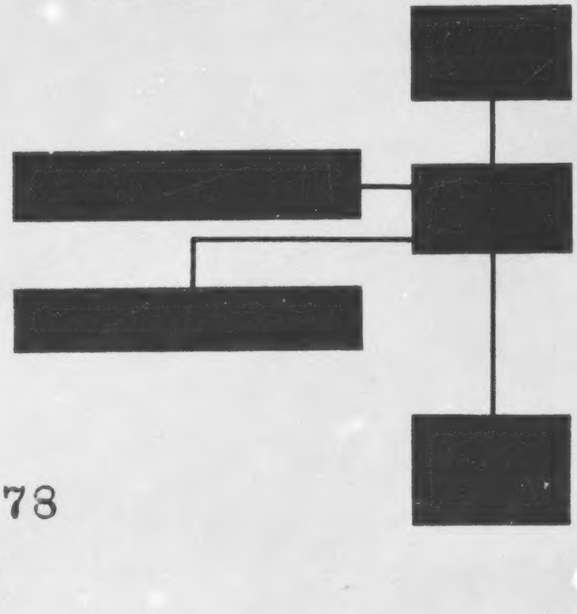
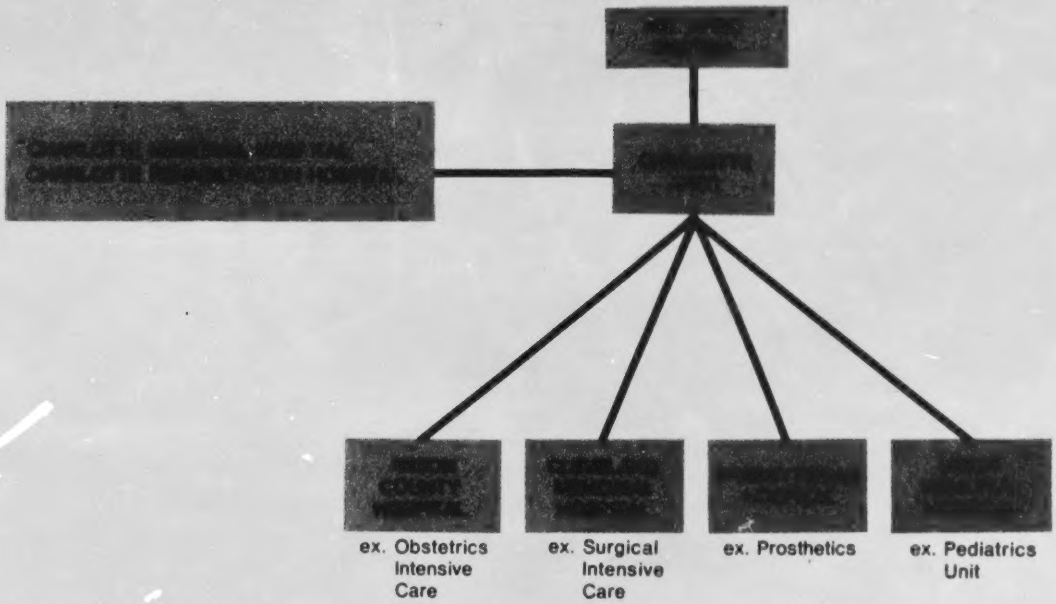


Figure 5: Short Term Clinical Experiences in Nursing

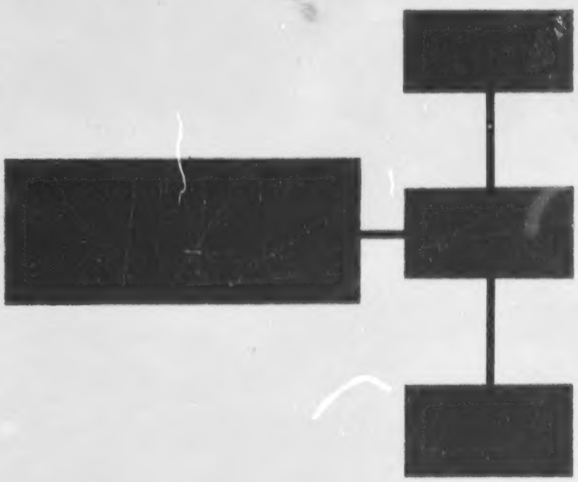


Charlotte Memorial Hospital going through staffing, procedures, and policies. She returned and then came back with her entire team of three physicians and four nurses. Within our own county, one of our acute care hospitals started in the prosthetic business, total knees and total hips. Their nurses had rotations in specialized orthopedics. These are simple linkages, but again, most significant. Another example was a hospital not too far from us where we were helping them set up a pediatric unit for the first time. They were up to operate a specific respirator that takes a lot of talent to run. For this they will have a clinical instructor from the Charlotte Memorial Hospital near them for 3 days. Let me point out that this instructor gets no AHEC salary. In fact the total staff of the Charlotte Memorial Hospital are looked upon as teachers by our administration. In our area there is considerable cooperative spirit in AHEC.

On one occasion, as shown in Figure 6, we were asked to help with the development of volunteer programs at the Union Memorial Hospital. This was an unexpected request, but our AHEC allied health coordinator picked up on it since AHEC is for all health personnel. In addition to drawing on the resources of the Charlotte Memorial Hospital she used the Elliott White Springs Hospital in Lancaster, South Carolina and two other hospitals in Charlotte. So through AHEC Union County received the resources of four hospitals. One, Mercy Hospital, happened to have a superb gift shop. They gave a workshop specifically on establishing gift shops, staffing, purchasing, financing, operating. Elliott White Springs Hospital had a reputation for having one of the finest escort services. Specific seminars were held on that subject. Charlotte Memorial Hospital and Presbyterian Hospital combined on training the Candy Stripers. As a result, this small hospital in a rural North Carolina county now has one of the best volunteer services of any hospital in North Carolina. In fact, we have now used this hospital as a resource when a similar request for help in volunteer services came to us from another rural county.

The linkages established for continuing medical education are extremely complex. We get immense help from the University of North Carolina School of Medicine. Here we also have tremendous support from the visiting medical staff of the Charlotte Memorial Hospital and from some of our AHEC

Figure 6: Volunteer Program Development



hospitals. Our full time AHEC faculty in Charlotte have helped all of our counties develop an organized continuing medical education program for physicians. Charlotte AHEC supports this with human resources and financial resources, and we provide 25 percent of the programs right from the Charlotte Memorial base with our full time faculty.

Let me give you a few other examples:

1. Refresher courses for inactive nurses have represented complex linkages, including the University of North Carolina at Charlotte, a community college, the Health Science Center at Chapel Hill, and five community hospitals.
2. Before AHEC, the Mecklenburg County Heart Association offered continuing education for Charlotte nurses only. With AHEC support we have participation with all counties, using the three major hospitals in Charlotte. We have nurse coronary care specialists go to these hospitals personally to evaluate the students after they have finished these courses.
3. At one point we decided to get into the problem of child abuse and neglect. This involved a very complex planning linkage of multiple institutions, governmental agencies, community colleges, private community facilities, the U.N.C. Health Science Center (especially the Department of Pediatrics), and the Institute of Government in Chapel Hill.

In closing, let me illustrate how a cooperative arrangement between an AHEC and a community *can* have tangible manpower outputs by describing our experience with a county that has been proclaimed underserved by the Secretary of HEW and which qualifies for National Health Service Corps people.

Several years ago, the medical community of Union County felt that unless the facilities and professional environment of the community were improved, needed health personnel would not choose to practice in the area. As I mentioned earlier, the initial request to the Charlotte AHEC came from the hospital to help with their volunteer staff. From this relationship we were asked to help in procuring an In-Service Director of Education, who has since worked with us in developing a program to train hospital personnel for a new respiratory therapy unit, a 24 hour 7 day a week emergency room service, and continuing education programs in social service, laboratory procedures, anesthetics, pharmacy, radiology, nutrition, intensive pediatric care, geriatric nursing, and dental hygiene. Currently, several members of the hospital staff are meeting with an epidemiologist in Charlotte to develop a new infection control program.

Up until a few months ago there was no way for physicians in Union County to take care of the ordinary heart attack, except for periodic monitoring. In the past it was safer to transfer those patients who were well enough to Charlotte. At the request of the hospital, our chief of cardiology helped them to design a coronary care unit and provided special training to two of their physicians and three of their nurses. Simple cardiac monitoring problems are no longer referred to Charlotte from Union County. We now receive only those patients with complicated problems or with electrocardiographic evidence that they may need a pacemaker.

The medical society of Union County desired a continuing education program for physicians. As I mentioned, we have assisted them by providing some resources. Recently this group has requested and received presentations and discussions on renal dialysis and renal transplant, fetal monitoring, cardiology, pulmonary embolism, ante-natal care, hypertension, and adolescent gynecology. The monthly sessions are attended not only by the physicians of the area, but also by the paramedical staff of the hospital and the Health Department.

The Health Department of Union County was expanding and called upon us for technical assistance in developing a program in leadership skills and staff relationships. AHEC has also been asked to provide the Health Department nurses with continu-

Dr. Bryant Galusha describes program linkages between the Charlotte AHEC and other institutions.

ing education. We recently provided the Health Department with a link with experts at the School of Public Health at the University of North Carolina and at North Carolina State University who are developing a program for sanitarians which will be relevant and specific to the soil and hydrology in the Union County area. Incidentally, the director of the Health Department maintains that AHEC has also facilitated a cooperative working relationship between his Department, the hospital and the greater medical community which has been a key to the success of weekly clinics in prenatal care, family planning, cancer, and venereal disease.

A year ago there was no pediatrician in Union County. We encouraged one of our former pediatric residents to participate in the pediatric well baby clinic of the Health Department. This physician liked the setup so much that he established a private practice in the community. Before he established his practice, he admitted that he had some concern about being professionally isolated. His experience with the expanding facilities of the hospital, the active continuing education program of the medical society, access to the services of Charlotte Memorial Hospital, and the availability, through AHEC, of monthly consultations at the U.N.C. School of Medicine, alleviated these fears. Since the arrival of the pediatrician in Union County several nurses from the community hospital have received training in pediatric care at the AHEC. The pediatrician is discussing starting a pediatric screening clinic in cooperation with the Health Department, has acted as a preceptor for a nurse practitioner, and has convinced another pediatrician to join him in his practice.

Similarly, the county had no pathologist or physical therapist a year ago. One of our pathology residents who finished training last year went and established his practice. Union Hospital now has a histologist, cytologist, and a laboratory linkage with the Charlotte Memorial Hospital. Next, we helped the hospital contact an expert at the University Health Science Center, who came down to Union County to discuss the feasibility of a physical therapy program. They now have a part time physical therapist.

The county has serious dental problems. Dental students from Chapel Hill, as a part of their education, now have off-campus rotations through the Charlotte AHEC in a screening clinic for some of the elderly in a county nursing home, many of whom are now getting remedial dental care.

I want to make it clear that the AHEC system did not *do* anything *to* Union County. The initiative for all of these developments has come from a variety of institutions and a number of dedicated individuals in Union County. It is an example of what can be done by people who want to help themselves through the AHEC system. The accomplishments of the medical community of Union County add credence to the AHEC concept. This is why we are encouraged and enthusiastic and think that there is a real future in AHEC.

Panel Presentation #2

Dr. James McGill

Introduction

I suffer, not unhappily I add, a type of "loneliness" referred to earlier today, being a State-level bureaucrat—a term I consider descriptive, not pejorative—amongst scores of "implementors." I am very pleased to have the opportunity to interact with the line people in one of the more important and imaginative developments in educational delivery this country has seen.

In an effort to identify institutional setting and provide a perspective for my comments, I will indulge in a brief overview of higher education governance. I will then describe some current health manpower planning issues in Illinois which have some general relevance and suggest the potential, the problems, and the prognosis for addressing effecitvely these issues by decentralized, regionalized health manpower education. To conclude, I will present one man's opinion of the Illinois AHEC effort.

Higher Education Governance

We have heard this morning an enlightened and informational discussion of the subject of governance—with particular reference to the complexities of institutional and individual relations in multi-institutional settings. In keeping with the very important suggestion that institutional constraints on individuals be acknowledged, I would like to take a few minutes to state where I and, hopefully to some degree, other state-level higher education agencies "are at," in relating to AHEC and, more broadly, to the problems and issues which the AHECs are addressing.

The traditional governance of higher education has been, in fact, the faculty's. They, historically, have not only designed and presented educational offerings, but to a very large degree have determined what the role of the university or college was to be. With the advent of the land grant universities over a century ago, the Government dictated some new directions for higher education, e.g., agriculture and the technological sciences. Nevertheless, the university remained relatively immune from constant detailed review of its particular mission and role by extra-educational agencies.

In the last two decades, the public through its elected officials, has begun to take a more active role in determining the mission, scope, and priorities of the higher education institutions in this country. The specific means of control vary, but underlying all of the mechanisms is the fact that public tax dollars are allocated to these institutions.

What we see today in higher education governance is not really a diminution of the traditional role of faculties and campus administrators, but rather an additional layering on of accountability mechanisms and means of control to make the broad mission and scope of the institutions of higher education more responsive to the public at large.

There are two types of extra-campus responsibilities being exercised in the operation of our higher education institutions today.

The "governing" responsibilities legally belong to some corporate "body politic"—a board of trustees or a board of directors. The responsibilities include the expenditure of monies, the hiring of staff, the entering into of contracts, and the awarding of degrees. Not parenthetically, these responsibilities also include the procurement of resources.

In addition, there are "coordinating" functions now being exercised, primarily in the public higher education sector, but increasingly also in the private sector. These functions include planning, usually interinstitutional. They include controls over the establishment of new educational offerings; "program approval" is the jargon. They include budget recommendations and advocacy to executive and legislative bodies. And they include, occasionally, the actual administration of educational programs.

The models of governance of higher education vary from state to state. One model is a combined entity having the responsibility for both the governing and the coordinating functions. The University of North Carolina is such an example; another is Oregon.

A second model provides a splitting of the governing and coordinating functions. In this model, there is a board of trustees as the corporate body politic for the operation of the institution and there are usually one but sometimes two or more, coordinating boards within a state charged with planning, program approval, and budget recommendation. Examples of the latter system may be found in the states of Washington, California, Indiana, and Alabama, to name just a few.

The Illinois model is of the latter type of higher education governance, functioning as a so-called "system of systems." Since my remarks and perspectives on AHEC are conditioned by that particular setting, I will briefly outline the Illinois governance system in terms of its institutions and levels of educational responsibility.

There are four separate boards of trustees for 13 Illinois public universities, each board having from two to five separate institutions under its purview. In addition, two of these boards have remote, regional medical school campuses. There are some 38 separate community college boards of trustees, governing some 48 distinct campuses. The community colleges have their own coordinating board. Layered on top of all of this is the Illinois Board of Higher Education, the State coordinating board.

The Illinois Board's responsibilities are first: interinstitutional long-range planning. The Board is now developing its fourth Statewide Master Plan in its 14 years of operation. Topics included are institutional missions and scopes, means of abating interinstitutional competition, review of existing programs, means of financing community colleges, tuition policies, etc. One major component is the revision of the State plan for health professions education, a topic to which I will return shortly. Its second primary responsibility is the approval of all new units of instruction, research, and public service in the public sector. The third is the annual recommendation to the Governor and General Assembly for State support of higher education—total State budgets for the public community colleges and universities, support of the State scholarship program, and grant programs for private institutions, including over $16 million this year for health professions education.

Health Professions Education Planning in Illinois

With proper deference to Dr. Gordon of the Carnegie Commission and her engaging talk yesterday, I, having acquired a healthy dose of Illinois chauvinism in 3 years, am compelled to say that Illinois was there early on, anticipating many of the recommendations of the Carnegie Commission. In 1968, the Board of Higher Education adopted a health professions education plan for addressing some of the health manpower problems with which you all are familiar: insufficient numbers of manpower, geographical distribution, specialty maldistribution, and, of extreme interest in Illinois, low retention of its medical school graduates. The plan called upon the politicians and educators in the State to expand health manpower production rates and, concomitantly, to expand opportunities for young people to enter the health professions. The plan was very specific that the expansion was to be done in a geographically decentralized manner, utilizing existing hospitals, practitioners, and educational institutions.

The results of the implementation of the plan include:

- Twelve medical schools (or components

thereof)—seven in Chicago and the remainder at the geographic, demographic, and economic centers of separate regions with one-half to 1 million people each. This geographic dispersion has been accomplished, utilizing existing community clinical facilities as the teaching settings for medical students:

- Development of graduate medical education on a regional basis under the auspices of the regional medical schools, with emphasis on primary care specialties.
- A new downstate dental school.
- Substantial expansion of number and size of nursing and allied health programs.

With respect to resources, the State of Illinois has appropriated 20.0 million dollars for capital facilities and a cumulative total of 18.1 million dollars in operating funds to support AHEC-type regional health education activities since 1971. The Board of Higher Education has recommended about 10.0 million dollars for capital and 8.5 million dollars for operating expenses for 1975-76.

As previously noted, the Illinois Board of Higher Education is developing a new higher education master plan. I would like to share with you those issues relating to education of health professionals which are garnering primary attention in this process.

First, medicine. Distribution and retention are the issues. While the initial data, although scanty, indicate that the regional medical schools are serving as magnets for new physician manpower, there remain acute needs in the rural and inner city areas. The problem of retaining physicians educated in Illinois is an issue around which much rhetoric revolves. The problem in simple terms is a State with a relatively inhospitable climate and a depressing lack of topographical relief. Only slightly more than one-third of the living physicians who graduated from medical schools in Illinois are practicing in the State.

The role of AHEC? The accelerated development of regional graduate medical education programs in conjunction with the maturation of the new medical schools probably offers the most realistic means of addressing the distribution and retention problems. The residency programs must be educationally within the purview of the medical schools and should be set in a network of existing community hospitals. The partnership of the State and AHEC in this effort, will, I believe, result in a somewhat better geographic distribution of physicians and should certainly increase the retention rates of Illinois-educated physicians.

The Illinois AHEC effort has a critical role to play in providing ready geographical access to baccalaureate and masters nursing education. The current regionalization of baccalaureate nursing completion programs is laudatory. By far, however, the more critical planning issue in nursing education, from my perspective, is the question of numbers of programs and of nurses to be graduated for LPN licensure and for RN licensure, by type of program. The public, legislators, and lay board members, such as I work for, are growing weary of the intra-nursing debates, often in the apparent absence of consumer considerations, of the status of the nurse. I believe it is incumbent upon nurse educators to more clearly define, in collaboration with their other health manpower colleagues, what it is they must provide in nursing education programs to allow a nurse to perform effectively whatever the specified tasks are. Having done this, the educational numbers game can begin to be played with some semblance of comfort.

I would like now to turn to allied health. For purposes of the discussion, I will take allied health to include those health-related professionals educated at the associate, baccalaureate, and masters level which require a substantial clinical component in their education, excluding nurses.

First issue: how many, of what type, and at what educational level, should we be educating allied health manpower? In the last half decade in Illinois allied health education programs blossomed like Topsy in the community colleges and senior colleges and universities. While determining allied health manpower needs is a disquieting process, at best, we have begun to collect some systematic data on demand of the major employers for several categories of allied health manpower—the hospitals. Without citing to you all of the necessary caveats in interpreting such data, let me just say that there does not appear to be large unmet demands for many categories of these personnel in Illinois. There are, to be sure, geographic pockets of need. I do not want to digress into the details of determining allied health manpower needs, however. There is an overriding issue which, if effectively addressed, will subsume to a large degree the manpower need question.

What must occur in allied health education, in my opinion, is the development of an educational system which will have all of the motherhood and apple pie characteristics: flexibility, responsiveness, accessibility, efficiency and accountability.

Let me try to explain what I mean by first citing some specifics from Illinois, which I suggest is not unique.

- The rate-limiting factor on the production of allied health professionals of many types is the number of clinical education positions or slots available. This is particularly true for baccalaureate programs:

- Our educational institutions are abdicating their educational responsibility for students. In particular, too often the university will turn the medical technology or physical therapy student, to name just two, loose to have their education completed in an institution with which it maintains no effective educational relationship, that is if the senior student can find such a clinical position at all.
- The financing of clinical allied health education is a patchwork. The financing structure is a mess, aided and abetted, I confess, by State-level regulatory agencies. Student stipends versus no stipends. Tuition collected or not collected. Cash payments from educational to clinical institutions or not. Direct State grants to both hospitals and to educational institutions. Patient-care fees or not. All of these extremes can be displayed in Illinois.

The reasons for the confused state of financing allied health education today are many which we need not spend much time on here. I'll just cite a few: the traditional pattern and setting of the training experience, the accreditation schizophrenia, the desire of educational institutions to find new student markets, and a set of perverse financial incentives.

Regional Health Professions Education

Health professions education is by nature of its product different than education of nonhealth manpower. It is unequivocally and irrefutably multi-institutional. Community colleges, senior colleges, universities, and medical schools all may find themselves conducting parts of their educational programs in yet another institution, a clinical facility. Given the increasing demands made upon the health education institutions it is no longer feasible for the parties to adopt a "live and let live" approach to clinical education.

Rather, joint, negotiated solutions to space, money, scheduling and other related problems must be found. These joint relations should encompass the following:

- The use of clinical facilities, recognizing that there is a limit to the amount of clinical material available to serve educational needs. Collaborative arrangements might include scheduling of students and development of student health teams.
- Curriculum design. The hospitals should have some say regarding curriculum.
- Articulation standards and perhaps even admission requirements. Consortial arrangements among community colleges, universities, and hospitals provide an opportunity for effectively implementing career ladders in nursing and allied health.
- Decisions regarding size and type of programs. The flexibility to expand or shrink program size in response to manpower needs is enhanced in an effective collaborative effort.
- Agreements regarding educational responsibility. This issue must be resolved. My personal feeling is that the ultimate responsibility is the educational institutions, but that the clinical facility ought to be made a partner in setting standards and evaluating performance.
- Financing. Who will pay? Again, my personal opinion is that financing of clinical education ought to remain to a large extent the responsibility of the hospital, with collaborating educational institutions providing nonfinancial quid pro quos to the hospitals.

The potential advantages of collaborative, multi-institutional health education programs are many:

- Expansion of clinical educational opportunities through more effective use of available clinical resources.
- Minimization of duplication, drawing on the particular strengths of each collaborating institution.
- Flexibility to change program sizes and mix in response to shifting manpower needs.
- Clear-cut forms for educational responsibility and, not insignificantly, accreditation.
- Richer educational experience for the student.
- Enhanced career mobility for students.
- Increased efficiency.
- Coherent financing structures.

The problems in establishing such consortia stem from their multi-institutional nature. Each institution has its own constituency to which it must respond. These institutional constituencies will not completely overlap. They must be educated as to the advantages to them of collaborative arrangements.

The effecting of collaboration occurs at many levels. The university is one of the most monolithic institutions in our society. Collaboration must occur at the faculty and program level. But agreements consummated there must then be carried up along the lines of authority, being "sold" at each level. Ultimately, the group bearing the legal institutional authority—the board of directors or board of trustees—must signal the official recognition of a collaborative arrangement negotiated at the program level.

The process is tedious, requiring people, as Dr. Kollmorgen characterized them yesterday, who have the ability to acknowledge their roles, to admit to error, and to recognize that the university does not have all the answers.

AHEC in Illinois

Dr. Zimmerman, Director of the Illinois AHEC, has invited me to share my view of the Illinois AHEC experience with you, courageously suggesting that I specifically note some problem areas.

First, note that the AHEC contractor is the University of Illinois, Medical Center campus, College of Medicine, the largest and most prestigious public university in Illinois, having the largest comprehensive academic health science center in Illinois, and soon to be in the Nation, containing the State's largest medical school and only publicly university-owned teaching hospital. The University is charged to engage in an inter-institutional endeavor, never before paralleled in its history. We all know about academic rigidities. We all know of the inherent higher education pecking orders. You all know of the problems of modifying these characteristics to turn the strengths and offerings of a university outward to link with other institutions to meet specific community needs. You are doing it. The University of Illinois is doing it. But it isn't easy.

Consider the University of Illinois AHEC contract. It charges the University with expanding enrollments *in its own programs*. It charges the University at the same time to collaborate with other educational institutions in the offering of nursing and allied health programs—anxiety, fear of take-over, competition for turf and funds—yes, all of these in the collaborating institutions.

The University must deal with these issues. To some extent it has, but there have been obvious failings.

The community college system in Illinois is very strong. Territorial disputes among the colleges themselves are virtually nonexistent, since each is mandated to serve a specific catchment area. The colleges have strong local political bases and exist to meet the needs of the communities in which they are located. In allied health and nursing education, it is often the case that the colleges have developed very strong institutional ties to local hospitals. The sensitivity of the University to this system needs to be heightened, as it is indeed becoming, as it moves into an area demanding a share of the available clinical resources and as it is responding to its broader set of demands than the local ones to which the community colleges respond. President Jacobs will deal with these issues in a much more complete way in a few moments.

There also have been problems in the University's relations with clinical institutions, the University desiring to expand manpower education, with the clinical facilities not in total agreement as to type or size of the educational programs.

What is the prognosis for the continued implementation of AHEC concepts in Illinois? Very good, I think.

Regionalization of health manpower education is ingrained in Illinois. With the regional medical schools as foci, a health professions education infrastructure is being established. Institutional roles and missions are being redefined. The key to the success of the endeavors is the open and honest recognition of all the involved institutions' interests and the ability of the people involved to acknowledge their roles, their potential contributions, and their limitations.

Panel Presentation #3

Dr. Karl J. Jacobs

I find myself in somewhat of a disadvantageous position because I am really not trained in the health field. Listening to the North Carolina AHEC experience, which was indeed very exciting, I found it somewhat different from the experience we have had in region 1-A. It is different not in terms of the dedication of the staff of AHES, as we call it in Illinois, but simply that we face some difficulty in region 1-A in identifying counties that lack very fundamental areas of health care. I might just briefly describe what region 1-A is.

We are located in northern Illinois. Our particular dominant metropolitan area is Rockford, Illinois, the second largest city in the State. The metropolitan area of Rockford is about 250,000 people. Region 1-A covers a number of counties stretching from Rockford to the Mississippi River, a distance of about 100 miles. The area covered by region 1-A is rural, small towns, suburb, city, and intercity: a microcosm of a State. Rockford has certain uniquenesses. It is characterized by a strong, political, economic conservatism. It is reflected in the fact that there are three private hospitals that dominate the health field and medical practices within the Rockford metropolitan area. So, unlike Charlotte, we do not have a major university or a primary medical center from which one could swing into other kinds of activities. This creates a complexity for region 1-A because there is a great deal of political negotiation and competitiveness among the three hospitals for new programs and facilities. A further complication, one which I think will eventually be the saving grace of the Rockford metropolitan area, was the establishment, by the University of Illinois, of the Rockford School of Medicine. The Rockford School of Medicine is an exciting concept and it has been a catalyst to bringing together the three hospitals in a number of joint ventures. With this overall view of region 1-A, I find myself also in the most uncomfortable position of being in general agreement with the views just expressed by the representative of the Illinois Board of Higher Education. My point of difference with him might be in my absolute political regionalism in protection of the community colleges, but I think he would appreciate that.

My views of AHES are really quite multifaceted. I serve as president of a college that has a number of allied health programs. I also serve on the board of trustees of one of the larger hospitals in Rockford and am Chairman of the Joint Conference Committee. I am also Chairman of the AHES Steering Committee of Region 1-A and a member and former officer of a unique creature called the Rockford Medical Education Foundation. This is a private foundation that has been created to handle certain types of graduate programs for the University of Illinois. In a sense, we administer, in conjunction with the University of Illinois, certain educational programs from the Rockford School of Medicine.

After attending this conference, I see that the AHEC or AHES organizations and styles vary throughout the country. It has been personally very valuable to me to see how very different and very flexible the Federal contracts are throughout the United States. Another observation I might offer is that many individuals here are really implementers of policy rather than the formulators of policy, at least in terms of their role.

Some revolutionary changes are occurring or have occurred in the allied health fields which are important to me because of their considerable impact upon the community college. In the past the allied health field was female-dominated. The physician or hospital operated or controlled those programs. Some of those allied health fields were profitable to the hospital and to the physician and entry, exit, and the standards by which they were conducted were easily controllable. The paraprofessionals in those fields were generally underpaid. The following changes that have occurred have complicated matters: a greater entry of males in certain areas of allied health fields; a shift from hospital-based to education institutions, either to community colleges or to senior institutions; the increase of cost of the training and upgrading skills maintenance of personnel; a need for very highly sophisticated organization, skills, and equipment; more competitive salaries; the effort to professionalize certain health fields, such as nursing; and the philosophic tug of war which goes on today over the concept of the health team approach to the patient as opposed to the control of the physician over the patient. All of these changes have to be viewed against the background of increasing third-party (meaning government) involvement not only in the hospitals but also in programming. Another factor is the tremendous increase in cost that is impacting upon all of our hospitals throughout the United States today. Another factor that certainly plays upon the field of allied health today is the growing assumption by some of our citizens that they have a right to good medical care, as a political social expectation. Within the college and university structure, all or many of the above-mentioned themes are being played in somewhat of a discord.

What I have observed is that there is often a genuine philosophic commitment by individual colleges or universities, and the people within those colleges or universities, to develop those areas. As AHEC or AHES has come along, I have noted many of these people are not oblivious to the AHEC dollars and power which lie in the potential of the AHEC Federal contract. I see it in the field of nursing in our region. I also note at the conference the concentration and the emphasis, by using AHES and AHEC, to place a high priority upon baccalaureate and master's degree programs as a form of upgrading the professionalism of nursing. Obviously, this is appropriate within a certain context. However, many times the public is confused as to whether this should be the highest priority when they are seeking patient care nurses and new and more effective ways of training of diploma and associate degree nurses. One wonders about the high priority placed on upper mobility of nurses for degrees. I would suggest that this priority is somewhat in contradiction to the public outcries we have all experienced in higher education over our degree-itis, with a surplus of PhDs and the entry of too many people into fields on the basis of degrees. I am not so sure that one of the tasks of AHES ought to be to re-evaluate our programs in the allied health fields, assessing the practicalities of the training and the assigning of the appropriate certificates, associate degrees, or higher degrees to them.

I would like to make some observations about community colleges. Community colleges are sort of the new kid on the street in the higher education family, and I think they reflect many of the problems of the new kid on the street. Many citizens see the community colleges as conservative social engineering institutions. I have often said that the conservatives see the community college as the conservative solution to social engineering: that all of those people who are sufficiently prepared to get through high school but perhaps not to go to the university ought to be put into postsecondary educations called community colleges. In a sense there is truth to this, but I think the thesis could be exaggerated, especially when it is applied to the allied health field. The same kinds of quality controls have to be applied to the community colleges as they are to any other area of higher education. One of the difficulties the community college has is that it is an evolutionary period of its development without the great tradition and experience the university has. That can be a virtue and a vice. The virtue, of course, is that it is not trapped, as the universities are, with established ways of doing things that are very difficult to break away from. On the other hand, however, they suffer from one particular problem: the monopolization of clinical facilities. Certainly the community colleges have to share clinical facilities with other institutions, but one of the difficulties that community colleges have when they come up against universities is that they face an enormous prestige and a great deal of political know-how that is assigned to any major state university. I appreciate that if a university is to be a strong, dominant force within our society, one must accept to a great extent its political ability or it would be devoured by the body politic. However, the community college in its youth could very well be sucked up by the universities if it did not develop a political base in its community and carve out its own area of competition, its own turf, and to be able to quid pro quo in exchange for facilities with other areas of higher education.

I think one of the great difficulties and challenges for the AHES or AHEC to work out is the negotiation of cooperative arrangements between institutions. For instance, in our area of region 1-A, it is accepted as legion that the University of Illinois College of Nursing has worked out a deal with the Northern Illinois University School of Nursing. I do not know if this statement is true or not, but I have heard it so often that I almost accept as a truth that the University of Illinois will not place new programs of baccalaureate training elsewhere because the Northern Illinois University provides these programs. If there is some credence to this, it seems rather inappropriate that such an arrangement has not surfaced and filtered through either the appropriate state agency or the AHES. Further, the AHES of Region 1-A, if involved, could add strength to any cooperative arrangements among postsecondary institutions.

One of the difficulties we face as community colleges is that we do not often have the financial base for providing allied health programs that might be available in other kinds of institutions. In the State of Illinois, we are confined to credit our funding with a differential for allied health. The operating costs of allied health fields are substantial. We find that to accept four or five allied health programs would nearly bankrupt part of our college. I would prefer that these programs be done by other people because of the costs. To put it another way, one of the advantages the university has, and I think it is a great advantage, is the ability to draw on the resources of the total university for research. The Rockford School of Medicine wanted to find out whether it was operating effectively and efficiently in its management. They drew upon the resources of the University of Illinois who sent a management team to the School of Medicine. The community colleges would not have that advantage and would have to go to an outside consulting firm, which would be prohibitively expensive. I find that when the Rockford School of Medicine has a particular specialized problem, it calls upon the university to help is solve the problem. I do not believe the Board of Higher Education is sensitized to the costs that are involved if the community college attempts to provide the full-dimensional kinds of experiences that would complement, fill out, and strengthen an allied health field. The resources simply do not exist in community colleges. I think the autonomy of the community college is hampered because, by and large, most community colleges are politically sensitive institutions in the community. The university has the advantage of risk that does not exist to a great extent in community colleges. I would contend that much of the propaganda that is written about community colleges is written by people who have never been to one. Community colleges exist at the will of the body politic of that community, unless it is state-run. And yet, interestingly enough, one of the reasons for selling community colleges to the community are their flexibility to respond. Very generally community colleges respond to what is politically sensible to that community. They will not risk things that are open to great public criticism, and I think that touches very much upon the question of allied health fields. A community college that gets itself involved in a number of allied health fields that are extremely costly may win the acceptance of the board of trustees, who may enter, on the president's recommendation, into a number of these programs. The minute the finances of that institution start to turn sour, the board of trustees as political people will turn upon the administration and the faculty. When they feel the pressure, they want to know how they got involved in these costly programs that are draining the tax dollar. They are one citizen force that can reach higher education. It is very difficult for most citizens to reach into the university with any effectiveness. Very often community colleges become the targets of many of the issues that are really senior institution kinds of difficulties. I admit we are living in a period of romance with the community college at this particular stage with the body politic, but like most romances they may turn on us very suddenly. So most community colleges are very sensitive about initiating allied health fields. Currently, many community colleges I know are involved through AHES contracts. I know several of them are having second thoughts as to whether to cooperate in exploration of more allied health fields because of the cost picture.

What is the role of AHEC as I see it particularly as it touches upon community colleges? I would say that I think that one of the greatest roles of AHES or AHEC would be not to do those things which we have been doing and are the most easy to do. Some groups brought together by a third party, meaning AHES, ought to identify what allied health fields are, in a practical way, that is useful in communication with hospitals, physicians, community colleges, and universities. There is often no universal agreement on the nature of what these allied health fields are or how people should be trained. We should find new and exciting ways to train people, not just initiate problems.

We should develop a system of recommended quality control over the training and performance of individuals in the allied health fields. I suggested a program at Rockford which is getting some interesting reactions. We have just phased out our diploma of nursing program at the hospital where I am on the board. When we phased that program out, the hospital administration was asked by the board of trustees to describe to them the experiences of other people who had done this: what had been the experience in the transitionary period of associating with a community college through an ADN program? The only kinds of reactions our administrators could get from the community colleges were strictly subjective, rather non-structured, and highly personalized. I suggested that what we ought to do through AHES is to conduct a genuine research study with the use of a third party to study the experience of a hospital that had abandoned a diploma program and was cooperating with an associate degree-granting institution and a university offering a baccalureate program. I suggested, further, that there ought to be some catalyst or vehicle established by which we could explore ways in which the weaknesses of the associate degree program, particularly in the clinical area, could be strengthened by the hospital and, in some structured way, carefully document this study and share it with other people. There have been some interesting reactions to the entire idea.

I would hope we would identify direct and indirect costs in the field of allied health, and explore ways that such costs may be reduced in an equitable manner. I think the body politic is crying out not for us to find more things to spend money on, but there is a genuine concern that since costs are going up very significantly in the allied health fields we must examine ways that we can deliver educational services that maintain the quality but reduce the costs. I would hope that AHES would direct itself to that point of view. I think that it is difficult for colleges and universities to direct themselves to that question for two reasons. First, administrators and faculty usually do things in the same way they have always done them. Second, the reduction of costs may be threatening to personnel. And I would hope that AHES or AHEC would direct itself to those questions. Perhaps it is too large a task and too fraught with dangers, but I think it needs to be done.

I certainly hope AHES or AHEC does not slip into doing the things that are the easiest and most predictable, a rearranging of what we have always done without AHES. I hope AHEC breaks out of the confines of tradition to explore new relationships. As delicate as it might be to step on the toes of community colleges and universities, I would support what Jim McGill said: examine quite candidly and honestly the state of allied health, the state of hospitals, and the state of higher education; identify problems and surface them. One of the most valuable functions I think that AHES has performed in the Rockford metropolitan area is to bring to the table the hidden agendas, the prejudices, the fears, the phobias, and the personality conflicts that existed in the community. That was a very painful experience to go through, but I think we have passed a very important watershed period. Now, we have people communicating with one another and re-evaluating the whole relationship of the AHES system. I would content that if we had started simply on the basis of projects and problems and had not gone through that period, we would not have surfaced and would not have had as much of an arena or platform for productivity that we will have in Region 1-A.

Audience Questions and Discussion

Dr. Felissa L. Cohen, Illinois: Dr. Jacobs made a point about masters programming in Illinois. I would like to say just a little bit about what we are doing in Peoria, and how we feel this is providing direct benefits to our particular region. Peoria is the third largest city in Illinois, and it also has small cities and a large rural area. We have students from several counties in our region who are in the masters programs, community college instructors, a head nurse in one of the intensive care units at one of the larger hospitals in Peoria, several staff nurses, five instructors from diploma programs, an instructor from a baccalaureate program in our area, and nursing supervisory personnel. We feel that the master's program, which has a very strong clinical base for the students choosing either family nurse practice, medical-surgical nursing or community health nursing, is providing qualified instructors for the nursing programs in the area. These instructors previously had not had access to any further knowledge in nursing. The students that they in turn taught were not gaining the knowledge that they should have in their basic programs whether diploma or community college or baccalaureate base, because the instructors themselves had not gone on to gain depth in their other areas. In addition, we feel that the hospital based practitioners are gaining depth in clinical practice that they had not previously had the opportunity of gaining. I think that we have made great strides in our particular region in inter-institutional relationships. We have students doing apprentice college teaching and school of nursing teaching with several different institutions. We found that the relationships these students have developed among themselves, in addition to their relationship to the institutions where they have been placed as teaching people, has greatly increased their understanding of the value of different types of nursing programs and of different hospitals and different institutions in the area. I think that we have sparked a little bit of awareness in our students of national health issues which is then spreading to their colleagues. We have been very surprised at how little knowledge many professionals have of what we thought were well known national issues.

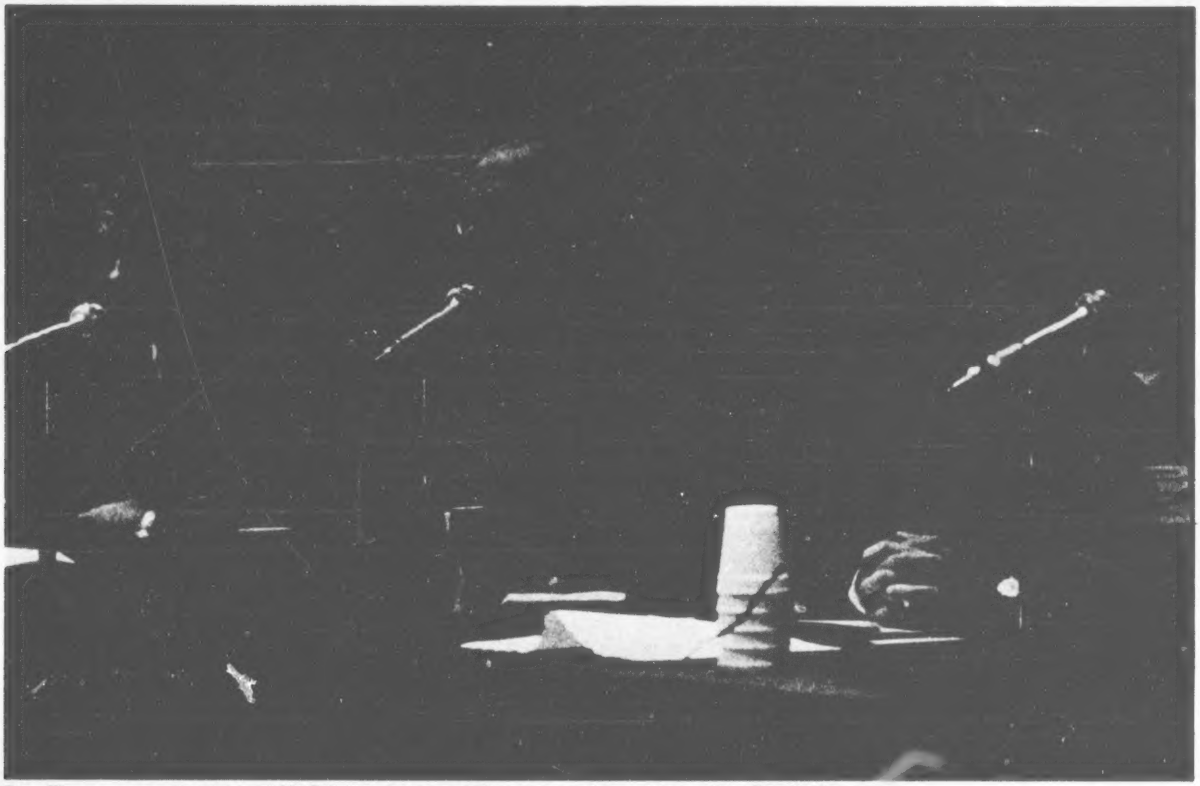
Another direct benefit is that we require a research project for the master's thesis. I just would like to give a couple of examples of projects our students are doing. We have one graduate who has coordinated students from all four basic programs in Peoria and worked with the medical students from the Peoria School of Medicine to form health teams who went out to all second grade classrooms in Peoria, probably 2,000 students. They gave special programming to these students in terms of what doctors and nurses do and what happens to them when they do go into a hospital. We have had a very positive response from parents and teachers about this project. Another project has been teaching the families of unconscious patients in the intensive care units about what to expect and what to look for in their relative who has been injured when they go home. I just wanted to make some of these points, because a lot of people do not realize that massive nursing education is more than just a degree granting kind of thing and does have something to offer.

Dr. Karl J. Jacobs: Well, I do not want to be opposed to master's degrees or PhD's in nursing, but I suppose that I keep asking myself, in the state of Illinois is AHES really necessary to do that. You know, if the university has set of priorities in providing baccalaureate, masters and PhD programs on a regional basis, is it necessary to do this on the basis of some Federal contract, hence AHES. I suspect that in my reasoning, I see when I listen to the very exciting things that are happening here in North Carolina, where people are described as having very genuine, fundamental basic health needs that could be met, that the AHES structure provided a catalyst that perhaps would not be unilaterlally accomplished by the university. I understand that, and I certainly appreciate it. My difficulty in the state of Ilinois is looking at the way in which some of those projects are distributed. I support a baccalaureate and masters program quite selfishly for my own faculty; we need it in Rockford. We have been pounding away at the University of Illinois to send us someone who could work for us in the field of nursing, although they still have not done it. We definitely need a graduate program, and we would like it from the university of Illinois. I really wonder whether that has to be accomplished through AHES.

Dr. T. F. Zimmerman: I would like to make a couple of comments. First, I would like for us not to focus on the nursing education quite as much as the inter-institutional aspects of this. I know that Dr. Jacobs and others have some pretty strong points of view about that particular issue. I would like for us to really focus more on the idea of the community college and the university understanding. Just making the comment, then, about the master's degree program, it is very much on a similar basis as responding to an intensive study of local nursing interests for the nursing master's degree program. In fact, I think that is important to recognize, that providing that kind of training reinforces bulk diploma and associate degree nursing programs in those regions.

Dr. Alice Major, Missouri: I would like to try to focus this subject. Sitting here, the last few days, and in many other situations, I have felt the pressure of the question, "Why do nurses have degrees?" One gets to the point where we say, "Why are you opposed to nurses having degrees?" Is there something wrong with nurses having degrees? This seems to be a troublesome subject, and I wonder why. None of the other professions that are senior professions pursue their course of professional study without a degree, and a much higher one than nursing has. So, this is a puzzlement to me.

Moving to Dr. Zimmerman's approach of coop-



Drs. Zimmerman, Jacobs and McGill listen to an audience question addressed to Panel #4.

erative relationship, let me say that the picture in nursing is very confused, and understandably the other professions are getting annoyed with us. The solution to that will not be annoyance; it will be figuring out a way to cooperate with nursing, to make the picture simpler. One of the additional confusing features that was added to the nursing scene, which used to consist of diploma, baccalaureate, and master's, has been the introduction of the terminal type of associate degree program. Now, if the institutions are going to cooperate, I would suggest that one good way of doing this would be for the associate degree community colleges to work through, with the senior colleges, a type of associate degree for nurses which would be the lower division, or the first two years, of the baccalaureate program—where nurses could stop at ADs, and be licensed if they wished, and those who wished to continue on could continue on, up the ladder, through baccalaureate, and to a masters, etc. This would simplify the picture. It is one small step. There are a great many other problems, but this would be a cooperative venture, and I would like to say that I underline everything Dr. Cohen said.

Dr. David Kindig, Washington, D.C.: This may be stretching the linkage a bit, but I am curious if the panelists, or anybody else here, could speak to specific programs that AHECs have undertaken to link specifically National Health Service Corps assignees and their catchment areas into their hospital or their university health science centers for continuing education.

Dr. Henry S. M. Uhl, North Carolina: Here in western North Carolina we have had National Health Service Corps trainees in our rural clinics that are supported both by the University of North Carolina School of Medicine and the other health science schools in Chapel Hill and by our own AHEC continuing education programs, upgrading education programs, and other activities right here in Madison County, just next door to us.

Dr. Eugene Mayer, North Carolina: There is another kind of inter-institutional relationship that we have in North Carolina, which is not demonstrated by the Charlotte AHEC program, and I thought I might just take a minute to mention this. I do not know if other regions are doing what we are trying to do, and if it has any relevance for you, but in Charlotte there is a clearly defined regional hospital which is the focus of AHEC. But we have many other regions of the state where there is not one hospital which stands out as the major service or referral center. Where we have that situation, we have created a new, incorporated foundation, representing the interests of two or more hospitals—which in effect becomes the AHEC. Here in Asheville, for example, there are two hospitals, across the street from each other, one a Catholic hospital and one non-sectarian, roughly the same size, historically competitive in many ways, who have now formed a partnership, of equal voting strength, which consists of a trustee and an administrator from each hospital as well as representatives from the medical staffs, who are in effect the AHEC Board of Directors.

In other parts of the State we have examples where as many as twenty hospitals have come together and function on a daily basis with an AHEC executive committee. These arrangements had some interesting spin-offs, from their intended role in coordinating educational planning between clinical resources. We have begun to see these same hospitals, and I won't say this is just because of AHEC, have much more in the way of cooperative services planning. Again, here in Asheville, one hospital has closed down both its Obstetrics and Pediatrics services now. They have stopped competing over a Cobalt machine, and they are going to have the family practice center in one place, where they had originally thought they might have a split family practice training program. This is another, I think, very tangible kind of thing that can be done through the AHEC mechanism.

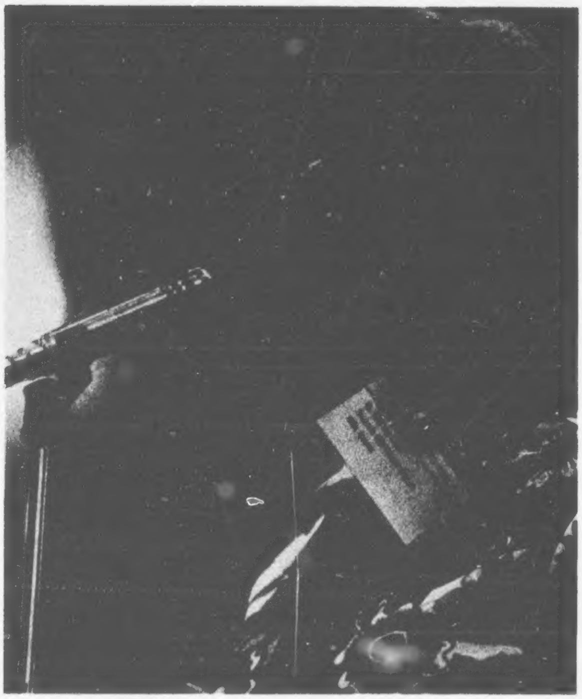
Dr. Jacobs: You know, one of the things that confuses me, as a lay person, is that in our area we have top help, they certainly get involved in comprehensive health planning, and they get in on the action that touches into some of the areas of what we are doing in AHEC. We have the Board of High Education, which is sort of going their way, understandably, working out some kind of coordination of resource allocation that touches on the health field. We also have a community college board that really does not do too much, but they do talk a lot about these sorts of things. Then, you have the hospitals' boards of trustees, who operate through the hospital council, who attempt to look at some of these programs. Then you have the AHES. I don't know whether I am trapped by the uniqueness or the specificity in our area, but I would be curious to know whether people in other AHEC regions have other kinds of overlapping coordinating groups of people that come in on the scene touching your AHEC performance.

Dr. Zimmerman: Perhaps those from other States could comment upon these layering groups that are all attempting to plan and to coordinate institutional efforts.

Dr. Charles M. Cargille, North Dakota: In Minot, which is a community of approximately 33,000 persons, we shared the problem voiced by Dr. Mayer concerning two community hospitals, of roughly equal strength, and a tradition of not previously having had much cooperation between the institutions. And, also, in the community, there was somewhat of a division between particularly strong group practices and the independent physicians. I think a useful model may have been developed in Minot to deal with these issues and thus far, I think it is extremely promising. For the family practice residency program, which could only be conducted in this community with the full utilization and the cooperation of not only these two hospitals but also the Air Force facility, there was established a Board of Governors for the family practice residency program. That Board of Governors now consists of the three hospital administrators, the Assistant Dean and AHEC Director, myself, representing the University as a constituancy, the physician who is the president of the principal medical health group practice, and a physician who represents the independent physicians of the community. By having the Board of Governors so constituted, with meetings of only six individuals, it is impossible to assure full community support for that program.

Dr. James McGill: Let me comment just a moment on the linkages, lack of linkages, at the State level of agencies in Illinois. Reference was made to the comprehensive health planning agencies. The regional medical program groups also comes into play. In Illinois, there has been some sorting out of responsibilities at the State level with respect to health manpower planning. I serve as, if you will, adjunct staff to the comprehensive State health planning agency as well as being staff to the Board of Higher Education, relating particularly to questions of health manpower planning. I am the "A" agency then, of course, with its linkages to the "B" agencies. I must say that the regional medical program, covering roughly the upper two-thirds of the State of Illinois, has also cooperated in the definition of roles in respect to health manpower planning, in particular providing partial funding, as has AHES for the development of a health manpower data base. So, there are linkages, multi-agency if you will, at that level, but it also helps to begin to define the various roles and sort out who is going to be doing what.

Ms. Winifred Maher, Illinois: I would like to be Pollyanna-ish and be very serious, just for a minute. I would like to comment upon Dr. Jacobs' comments, that the primary thing he sees coming out of this regional effort was that things were gotten on the table and things are beginning to be aired. I would like to say that I am very gratified if this kind of



Ms. Winifred Maher addresses a question to panel #4.

success is coming from the AHEC effort, because in the philosophy of Federal support, as I understand it, after a number of years in the system, our Federal support is catalytic. It is not supposed to foster any university's efforts or build empires; it is to get the contractor to maximize the wealth of resources. I think this is a good point that I saw coming out of this discussion. I almost had apoplexy about a few other things. Our funds can't support a total effort to reform the whole State, but I do think it is gratifying if we are catalyzing action for independent action on the part of a state to address its own problems.

Dr. Jacobs: I am glad you said it, because I have felt that way strongly. One of the things that does bother me about my AHES experience has been the involvement of people with proprietary interests, and I am one of them. I am one of those trying to push a program in nursing up in our area because we need that kind of help, very desperately. It is very hard to have continuing education; we are very far from the University of Illinois, and we are on the back roads to Northern Illinois University. So, from a selfish point of view, I want to see the program happen. But, what bothers me a little bit about the whole AHES experience I have had is that people with a vested interest are running the program. Where are the lay people being represented in the AHEC contract? These are the people who pay the taxes; these are the people who make the policy decisions. What I find is that we are all kind of in it together with our own little rivalries and our own little fights in many areas. We saw it surfacing in nursing today, but the same discussion could have occurred about some of the other health related fields or the community colleges. We might get trapped with this whole AHEC thing in some areas if we do not bring lay people in. When we surface some of the concerns, I would like to hear what their concerns are. You ought to hear our trustees, who are industrialists, talk about a number of these things on the hospital board. You know, they talk in very different terms than we do. We ought to listen to them. We ought to hear them. Maybe they are wrong on many things, but maybe, just possibly, they may have sort of a naive insight into the truth about all of us. However, it is not happening, in my opinion, at least in our AHECs. Maybe that is one change we ought to make.

Panel 5

The Future of AHEC: Some Perspectives

Moderator: Dr. Hartwell Thompson
Deputy Director
West Virginia AHEC

Panelists: Dr. Margaret Gordon
Associate Director
Carnegie Council on Policy Studies in Higher Education

Dr. August Swanson
Director, Department of Academic Affairs
Association of American Medical Colleges

Dr. David Kindig
Deputy Director
Bureau of Health Resources Development

Mr. Daniel R. Smith
National Coordinator
Area Health Education Centers
Bureau of Health Manpower

Dr. Brian Biles
Professional Staff Member
Health Subcommittee, U.S. Senate

Mr. Stephan E. Lawton
Counsel
Subcommittee on Health and the Environment
U.S. House of Representatives

Introduction

Dr. Hartwell Thompson

As you remember, our other panels have discussed the influence of regionalization, education program development, and interdisciplinary program development. There have been round table discussions. We have talked, yesterday morning, about AHEC governance, and yesterday afternoon about AHEC and regional education and health services institutions. These have been, if you will, reviews of where we have been, the things we were concerned about when the AHEC programs were started, and a statement of the state of the art, even though we are talking about a relatively young venture. This morning we will be talking about the future of AHECs. Our panel, in this, will be looking at it in several perspectives. Dr. Gordon, the Associate Director of the Carnegie Council on Policy Studies in Higher Education, will review the future from the Carnegie point of view; Dr. Kindig and Dr. Smith, from the BHRD point of view; Dr. Swanson from the university's perception of AHEC and outreach programs; and Dr. Biles and Mr. Lawton from the point of view of the Congress.

As all of you knew before this conference, the concept of regionalization in education is not a new one. The greatest thrust for outreach in education probably occurred in this country with the passage of the Land Grant Act, or the Morrill Act, in 1890. The effects of this, of course, in the early stages of our national development, were in agriculture and in some technical fields, such as engineering. Medical and health education did not embrace the necessity for outreach programs with much vigor, in my judgment, until the late 1960s. At this time, I think all of us became increasingly aware of the limitations of the splendid institutions known as academic health science centers. These complex and expensive units have been described as some of the most impressive institutions developed in Western civilization. While everyone recognizes that the modern university health science center makes enormous contributions in the generation of new knowledge via medical research and in many other kinds of research, and is the keystone or the essential foundation for health education, including medical education, trends for increasing specialization of health professionals and the tendency for health professionals to aggregate in the shadow of the health science center is, in a way, almost reminiscent of the Middle Ages when citizens clustered around those inner walled areas of cities known as the Cathedral Close. So, too, have health professionals, until recently, tended to stay too much within the range of the tolling bell of the cathedral known as the academic health science center. It has almost been as though there was an umbilical cord attaching some of our people to the mother church, or the maternal health science center.

It was in this setting of maldistribution, and also some shortage of health professionals that the Carnegie Commission report on *Higher Education and the Nation's Health* made its significant appearance. While this report did not have the astounding impact of the earlier Carnegie report by Abraham Flexner, in 1910, it certainly was a call to action. The call to action has taken different forms. Area Health Education Centers concepts have been utilized in some ways by land grant institutions and other notable experiments such as the Tufts Medical School Bingham Associates in the State of Maine. With the advent of the Carnegie Commission report of 1970, however, there was an effort across the country to put into more explicit form the various types of area health education centers. These have included the BHRD model which we are concerned about, the regional medical program model, and the VA model. In establishing the AHECs of the Carnegie type, or of the kinds that are primarily represented here today, it was understood that we were trying to avoid the error of producing eleven virtually identical products. These were to be innovative, experimental programs. However, there

Panel #5: Dr. Hartwell Thompson, moderator, introduces panelists (from left to right) Daniel Smith, August Swanson, and Steve Lawton.

Panel #5: Panelists David Kindig, Brian Biles and Margaret Gordon listen to the panel presentation of Mr. Steve Lawton.

were some principles which could and should unite them. These were as follows: (1) educational programs will improve access to quality health care in the area; (2) each center serves the health education needs of a geographic area; (3) initiative is the responsibility of the academic health science center in partnership with appropriate institutions in the area; (4) education is for all health personnel; (5) the emphasis is on primary care; (6) program variability is encouraged to meet the needs in different areas; and (7) the academic health center accelerates and extends programs to which each has commitments.

With this as background, we should like now to examine the future of AHECs from these several perspectives I have mentioned a few minutes earlier. Our purpose in this is to have a critical review of our performance, strengths and weaknesses after we have come some three-fifths of the distance in the initial AHEC contract period and to explore possible opportunities for the balance of the contract period and for the years to follow.

Panel Presentation #1

Dr. Margaret Gordon

As in some previous situations I have been in, I have received mixed signals as to what I am supposed to do on this panel. The original letter I received asked me to discuss what is right and what is wrong with what AHECs are doing. I was left with the feeling that I would have nothing at all to say because I knew perfectly well that the AHECs represented at this conference were following the BHRD model, which was essentially the Carnegie Commission model, for the general organization and functions of an Area Health Education Center.

On the whole I must say I an enormously impressed with the efforts that have gone into developing this concept: dealing with all the difficulties of establishing a relationship between the university health science center and the area centers and organizing the area centers to work with the facilities and people in the community. I am also very impressed with the way in which the AHECs represented at this conference are building the notion of regionalization by using some of the other principles which were stressed in the Carnegie Commission report, such as bringing earlier clinical experience to the student. This conference has been a great learning experience for me.

I do miss a few things, and I do not think the blame lies with the people who are involved in developing Area Health Education Centers. I have heard no mention of any relationship between AHECs and prepaid group medical care plans or HMOs, as they were once called, and I had some hopes in the early stages that those two movements would go along together. There was a good deal of language in some of the statements of the Administration supporting the development of HMOs that suggested that the two movements would go along together. Somehow that does not seem to have happened.

Secondly, I tend to agree with those who have said they would like to see more involvement of consumers, but I see this problem in the larger context of what I think is the rather unfortunate way in which private health insurance has developed in the United States. The unions have bargained for health insurance as a fringe benefit, as something that the employer would pay for. Unlike groups of workers in some of the countries of Western Europe, West Germany in particular, where national health insurance grew out of sickness funds run by the workers, we have not had much consumer input into the development of health insurance in the United States. Einar Mohn, who for a long time was head of the Western Conference of Teamsters, became disturbed about this some years ago when there was increasing concern about inflation in the cost of medical care, and the unions were beginning to see that the increases they received through collective bargaining were simply going into meeting rising costs. Einar Mohn organized a group in California that was largely representative of unions, with the purpose of trying to get more worker and consumer input in negotiations over health insurance. I think we need that input in the future. Even if we get a national health insurance system, we are not going to have a very satisfactory one unless we have more representation of the consumer.

A third thing I miss is any mention of AHEC involvement in the ghetto areas in the large cities. After all, we have two kinds of shortages of health manpower in the United States: the shortages that occur in low income small communities and rural areas, and also the serious problem of shortages in the ghetto areas of large cities. Some of the OEO centers have tried to meet that problem. It is my hope that there will be involvement of Area Health Education Centers in that setting.

I have now decided that our estimate of the need for 126 AHECs around the country was really quite modest when one considers that North Carolina has several more than we estimated it needed, that North Dakota has at least one more than we thought it needed, and so on. Still, I have no regrets about coming up with an estimate of 126, because I think that if we had come up at that point with an estimate of 500 or 1,000 it would have been looked upon as absolutely dreamy and no one would have paid much attention to it.

I can now see that in some respects our definition of the functions of an Area Health Education Center was a bit too narrow. This was partly because we were working within the framework of a report on medical and dental education. We were not trying to cover the entire range of health manpower in that particular report. We did talk about rotations of M.D. and D.D.S. candidates among Area Health Education Centers for a part of their training. We should have recognized that students from schools of nursing, from schools of pharmacy, from other parts of the university health science center could also rotate and get part of their training in an Area Health Education Center, as they are clearly doing. We did not really envisage that perhaps a major part of the training of the people involved in primary health care—family physicians, internists, pediatricians, obstetricians—could take place in an Area Health Education Center. I do not think it should take place only there, but it is clear that some of those students are spending fairly long periods in the setting of a community hospital in an Area Health Education Center. The concept of preceptorships, which we have heard a lot about in this meeting, was just beginning to be heard of, chiefly in connection with the Medex program at the University of Washington, when our report was being prepared. That, I think, is a very significant development and is highly consistent with the general thrust of our report. I do not think we envisaged the extent to which the training of physicians' assistants, nurse practitioners, and so on, which we strongly supported, could take place in the setting of an Area Health Education Center.

Second, I would also be inclined to revise the definition we set forth to indicate that several community hospitals could form the nucleus of an Area Health Education Center in a cooperative way and two or more university health science centers could be the sponsoring organizations. We are getting that pattern of sponsorship in connection with the center at Fresno, where the University of California at San Francisco and the medical school at UCLA are cooperating.

Third, we also did not think that State funding could be as significant an element as it is in North

Carolina, although this is not true to such an extent in other States.

In reviewing what I have learned at this conference, I think it is highly significant that the Area Health Education Centers development is having its impact back on the university health science centers that are involved, although perhaps not on those parts of those centers that are highly specialized and research-oriented. Clearly, however, if a university health science center is to rise to the challenge of meeting its responsibilities to Area Health Education Centers, then it has to build up a core of people who are very heavily involved in that endeavor. I strongly believe, and I think no one in this conference would disagree, that the AHEC concept should be regarded as a permanent development to be continually extended, improved, and worked upon. It should not be regarded by the Federal Government or any one else as an experiment that we are trying out. What we have seen at this conference suggests, I think, that the experiment is very definitely having its impact. I look forward to the time, perhaps 5 or 6 years from now, when we will see some statistics that show that Area Health Education Centers have attracted health manpower in the areas in which they are located and have played a significant role in overcoming the problem of geographical maldistribution.

Finally, I think that it is time that we faced up to the unnecessarily complex administrative situation we have in the Federal Government, in which we have some Area Health Education Centers sponsored by the Bureau of Health Resources Development, another and apparently larger group sponsored within the regional medical programs, and another small group sponsored by the VA. I think there ought to be unification of the legislation, and centralization of the administrative setup; while at the same time retaining a role for regional medical planning (not necessarily in its present form) and for the VA.

Audience at the concluding session of the conference, Panel #5.

Panel Presentation #2

Dr. August Swanson

In her opening remarks, Dr. Gordon alluded to the fact that someone had published somewhere a statement that the Carnegie Commission had shown extraordinary chutzpah to designate town by town where Area Health Education Centers should be. Dr. Gordon, I am that person and will send you a reprint I felt the Carnegie Commission report was very timely because it pinpointed something which many of us in academic medicine were beginning to realize: that we were moving into an era when instead of providing patient care to a select group of patients in an educational setting, as we had done for years, we would have to provide educational services to students in a patient care setting. That sounds like a subtle difference, but it is really an enormous change.

Almost all of us who went to medical school who are in this room today went to medical schools which over a period of two generations had evolved educational settings for clinical medicine which were based upon the indigent, non-paying patient who was brought into an educational site where patient care was rendered in order to provide education to the students. Today, we are in an era in which almost 90 percent of our students receive their education in patient care settings which are controlled and governed not by the rules set up for education, but rather by the rules set up for patient care. This fact has meant that we have had to look to more diverse sites, more diverse settings, in which to provide education to students, because it is no longer possible to operate a medical school with only one good-sized county hospital. One has to have a whole series of types of clinical settings and those settings can and should range all the way from a remote town in North Carolina or West Virginia to the academic medical center university teaching hospital.

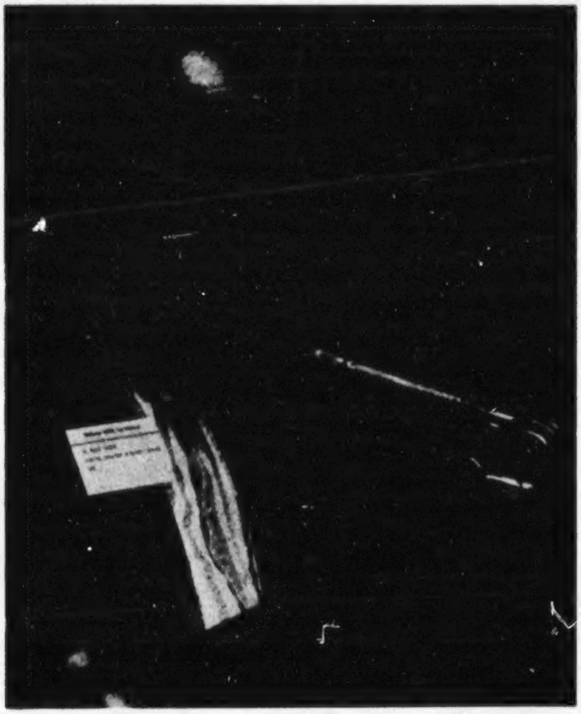
I was disturbed because I was afraid that the Carnegie Commission report would promote the development of separate sites which were not connected—centers rather than a system. And, in fact, I finally came up with the acronyms AHEDS, for Area Health Education and Delivery Systems, recognizing the fact that we had to enter into a new era when predominantly we would be providing patient care, and sliding in education where we could. I think most of you who run Area Health Education Centers in conjunction with the universities would agree that that is the game we are playing.

From the standpoint of the issue of whether or not faculties of medicine resist change, I would like to point out that while the academic community has always been said to be resistant to change, somehow all of the ideas for change come from the academic community. I think Dr. Gordon would admit that her Carnegie Commission looked more academoid than practiceoid. I would maintain that almost every one of the major thrusts that has modified medical education, biomedical research, and even health services in this country has come first from the academic community. There is no question that we have a multiple, pluralistic system in this country for providing education, and that the response of one institution may precede by some years the response of other institutions to the same issue. That, perhaps, is a good thing. It would probably be very chaotic if all our institutions always did the same thing at the same time.

We are having a little trouble these days with people, some of whom are on the platform with me this morning, who believe all institutions should do the same thing at the same time. I do not believe they should. I think we are moving in the direction of providing a more diverse type of medical education for our medical students. There are some things, though, that are beginning to shake the system pretty badly.

I would like to point out that in 1965, medical schools in the United States graduated 7,500 students and admitted approximately the same number. In 1975 we will graduate approximately 12,000 students and admit approximately 14,500 or close to 15,000. Now, that is a 10-year span. In 1935 the medical schools of this country graduated approximately 6,500 students. In the 30-year period from 1935 to 1965 the number of graduates from United States medical schools grew by only 1,000 students. In the 10-year period from 1965 to 1975 the number of graduates grew by 5,500 and approximately 7,500 more students were being admitted at the end of the decade. In addition to the magnitude of the change over the past 10 years in numbers of graduates and admissions to United States medical schools, the program changes have been enormous in all schools. If one utilizes the guideline that 50 percent of graduating students should remain in primary care—and this is a figure which we are now agreed upon at the Coordinating Council of Medical Education and people are using it for a target—then this year we would hope that 6,000 of the 1975 graduates will remain in primary care. By 1977-1978, when we achieve a graduating class of about 15,000, we will expect 7,500 to stay in primary care. These figures indicate that during this 10- or 12-year span we will have maintained the previous effort to produce the necessary specialists, and we are going to need them, and we will have added a 50 percent extra effort to continue to develop primary care specialists in new settings.

That is an enormous, stressful change, and it is causing problems. It is causing problems in terms of finding the sufficient faculty to carry out a mission of that size. I think almost all of you find out in the communities you enter that somewhere between 5 percent and 10 percent of the individuals who are not now engaged in education are willing to become engaged and are capable of becoming engaged. That is a good number if one considers 10 percent of the total physician population in the United States: it is a faculty addition of somewhat in excess of 35,000 or 40,000. But, those people are not all evenly distributed. They are not all equally accessible to the academic centers when we need them, and the resources to pay for their services are not always available. We are seeing an extremely difficult problem from the standpoint of building sufficient faculty to carry out the primary care thrust, particularly from the standpoint of remote regions.



Dr. August Swanson provides the university perspective on the future of AHEC at Panel #5.

These stresses show themselves in the administration of medical schools. The turnover of deans has already been alluded to. Now we find that department chairmen, those ogres who never went away and therefore never allowed change, are also beginning to have a rapid turnover. A survey done recently by Gene Braunwald (1975) indicates that 4 years is the average tenure of department chairmen and that 30 percent of the chairmen now serving have seriously considered resigning during the past year.

The movement toward Area Health Education Centers, the things you are trying to do, are with us for the future and forever, I think, because we are never going to be able to return to the era when we could teach medicine by utilizing a large county hospital and a few private hospital charity services. The future, however, from the standpoint of whether or not the education of health professionals will remain the province of professional educators or will become simply a means of providing a smattering of education by professional service providers, is open to question. My belief is that every medical student has the right to have an education which provides a firm grounding in the basic sciences, provides a firm experience in the tertiary care setting of a major university teaching hospital, and provides the opportunity to see the challenges in providing health services in remote sites. My personal belief in this caused me to make the effort and take the plunge at Washington to initiate the WAMI program, which now has students learning medicine in sites as remote as Kodiak Island in Alaska and Omak in eastern Washington.

What is the future of Area Health Education Centers? I think that the future depends to some extent upon the future of medical education in general. And that future depends upon whether or not we can weather the stresses and strains I have just pointed out. I think we will have a problem from the standpoint of finding sufficient resources to carry forward this dual thrust, this added task, because I think resources for all endeavors in this country are beginning to become very limited. It is unlikely that we will be able to have the outcomes we all desire unless we can find some mechanism for maintaining the financing of the medical institutions, both in their Area Health Education Center thrust and on their central campuses.

At this point I am not terribly optimistic. What the compromises will be is a question each of us will face as we try to prepare a program, maintain the quality that we can, and hope that in the future we will stabilize and be able to continue a broader medical education program which will never go back to the good old days of just the teaching hospital and the academic medical center.

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Panel Presentation #3

Dr. David Kindig

Sharing this time with you, and getting to know some of you, has been an important education for me. I am probably one of the newest people in this arena, although I have been interested in Area Health Education Centers for a long time. For the past 3 months I have had the major administrative responsibility for the BHRD AHECs in the Federal Government, along with Dan Smith. It is not my only job, and I have been struggling to try to understand what is a very complex program. I have been interested in its development from the beginning and aware of its philosophy, but as an administrator trying to get a handle on it for the last 3 months has been a very difficult job. The meeting we had on Wednesday and Thursday with some of our regional people and this session here have really gone a long way towards bridging that gap for me.

I am very impressed with what I have seen here these 2 days, with the efforts you are making towards decentralizing health professions education. For me it all boils down to, you do not educate health professionals in a vacuum, you educate them for service. A large part of that service has to be the actual delivery of sensitive clinical services with a focus in areas where services have not adequately been provided in the past. Unless we train students in those areas, and in the kinds of things they are going to have to do in those areas, it should not be surprising if service does not move in that direction. I think this is a really important step in that direction.

I struggled with your charge to me, and I do not feel that I or anybody else today can really say which things have worked, which things have not worked, and which things we would do differently next time. The question means that this is still an experimental program. The need for diversity in this kind of approach at this time is important. The richness of the diversity that I see here is very exciting. On the other hand, it is a national effort. It is being looked at as a national effort. You have to find some kind of common denominators, common experiences that run through these projects so that we can say that we can both describe it to the world and to the public and to the Congress, and also so that we can make some of those judgments as we look towards the next round and write another RFP. What kinds of things should we emphasize, drawn out of the rich, positive experiences that you have had, and which sorts of things should we try to discourage because they have been tried in other places and have not worked out? One of the greatest concerns I have in this meeting is that in our attempt to begin to get some of this evaluative data we have had a multiplicity of efforts which have inundated the AHEC projects. That is a grave concern to me, and I will make the commitment to you that we will try to consolidate those efforts so that we get the information we need, with the least amount of effort, so that you can get on with the battle and not spend all your time responding to us. I think it is natural to swoop down and try to collect everything, but evaluation needs to be done in a much more coordinated way. I make a commitment here to you today that it will.

I am concerned about different models and their advocates. It is a concern to me to have the whole effort divided into camps. I understand now very well what this model is all about, and some of the richness and importance of the linkage to the educational institutions. I think, however, for future directions and for future RFPs in this next round that we look carefully at the experiences of the RMP AHECs, the VA activities, and try to distill from across the board, the good experiences, the successful experiences that happened in all of those. I cannot tell you today what those are, but I cannot believe there are not richnesses to be subsumed from all of these experiences. Whether we will ever get to a central administration, at least within RMP and BHRD, is a very real possibility. We have talked about it. We have had a good relationship with the VA, but a central administration that broad may never come to pass. Certainly it should be a more coordinated effort.

I would like to make two or three quick observations about the future. As you know, we decentralized a lot of our activities in manpower a year ago. That decentralization has exactly the same philosophical roots as the commitment to decentralize health professionals' education. In a management turnover like that there have been a number of struggles and difficulties in getting it worked out. I think we are about to bottom out, at this point, on some of the struggles. I think we are going to have an effective central regional team in managing our decentralized programs. We have the spectre over us, however, of some recentralization provisions in the new manpower legislation which would apply to AHEC as well as other programs. Steve Lawton and Brian Biles may speak to this. As far as we are concerned, we are planning to implement what will probably be the spirit of that new legislation. It will mean at a minimum central, national review of projects on a basis, national or rural, of dollars, contracts and grants, and the requirement for a central source of information so the Congress, and the public and everybody else who wants to know, can find out what is going on in one place. On the other hand, our department and our bureau will do these things with least disruption of the current decentralized mode of operation, so that we can keep this machine that is beginning to work now, working well, and so that you have ready access to more local help in terms of monitoring, technical assistance, evaluations, and so forth.

One direction I clearly want to see is a closer integration of our HRA programs with AHECs. I am particularly concerned about pushing for continuing education responsibilities for both the National Health Service Corps assignees that we are responsible for, because we know that the main factor we have control over is the way they leave or stay in relation to their linkage to health science centers, and we will try to work with you in really making a priority effort. In addition, there are a lot of other activities for professionals serving in shortage areas through loan repayment. We need to link out and coordinate those Federal programs. Some of the legislative proposals require it. We intend to implement it whether or not it is required in the legislation.

Finally, I think that you should all be very cognizant of the implications of the health planning legislation that recently passed the Congress, (PL 93-641) setting up health systems agencies which have a large variety of functions. It is not totally clear how those regulations are related to manpower, but I would say that it is very likely Federal programs for grants and contracts for activities like AHEC will come under review and approval by these health systems agencies when that gets off the ground. So, I think that you should stay in touch with those developments in your area as it would be another important interface that you will have to deal with.

Panel Presentation #4

Mr. Daniel R. Smith

When the original contracts were awarded in middle 1972, we made a series of site visits and tried to state the philosophy of the central office in terms of operating the AHEC programs. I would like to restate that philosophy here. It consisted of three basic things.

First, in order to have an effective program there has to be a partnership between the Federal Government and the institutions or agencies which are involved in operating the contracts. That partnership has to be developed so that there is trust and understanding between the two parties. There is a clear line of demarcation between the responsibilities of the Government and the responsibilities of the institution. At the same time, the only way the contract can be effective is that we work together to develop the programs which make sense to you and to the Government. In the Government we have a significant degree of expertise and answers and within the educational and medical community there is an equal degree of expertise. It take discussions between both parties to bring about a good and effective program.

Second, we discussed flexibility in operating the programs. Flexibility in operating the program means that within your contract you have to follow the work scope. Within that contract you have to understand how to operate within the limits of the law and within the limits of the regulations. It is important for that type of understanding to be continued.

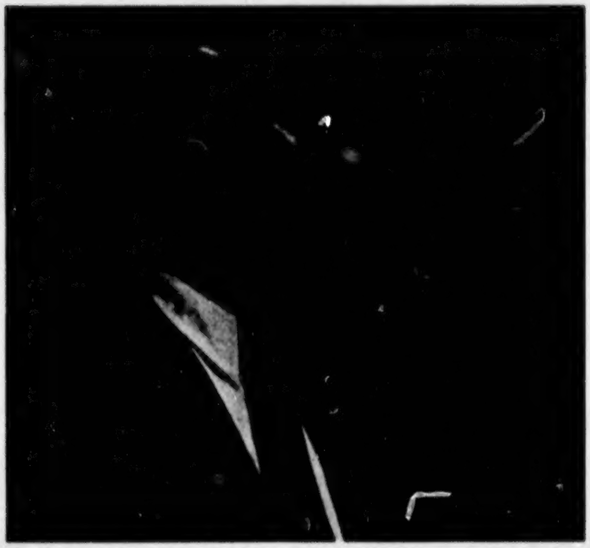
Third, we talked about fiscal responsibility. The key thing here is that you and I and everyone at this conference has the same responsibility: to safeguard the taxpayers' money. But you, as taxpayers, as well as my mother, your mother, your parents, all pay taxes into the system and it is your responsibility to insure that we get the maximum use of the tax dollars. In that respect, we all have the same responsibility. With those three things we can run an effective program more readily than if we try to disregard those issues.

We talked about the Bureau taking a leadership role in the AHEC effort. We have done that. We are mindful of the responsibility of this effort and, as Dr. Kindig pointed out, we are coordinating effectively with the Veterans Administration and their AHEC program, and we have active discussions and thoughts for working with the non-Carnegie AHEC type projects of the RMP- the HSEAs (Health Service Educational Activities).

The other topic we talked about earlier, when the program was developed, was what type of program we were going to have. Was it going to be a service delivery program or an educational program? We have not changed our course in terms of the Carnegie-type AHEC program which this model represents: devoted to educating health manpower. The education of health manpower is not just the education of medical students; it is the whole comprehensive area of manpower which includes dentists, allied health, nursing, and other health personnel.

When we talk about the future of AHECs, I am reminded of discussions we have had with people who say, "Really, your AHECs are just moving chairs around; you are just providing money to the institutions to do the same thing." I do not feel this is true, as demonstrated here by the presentations on the Charlotte, North Carolina AHEC program, Kansas City, Missouri AHEC, and the others which were presented. The key thing about the Bureau's Carnegie-model program is that in the long range view in my judgment, we are affecting the intra-institutional arrangements within institutions.

Which means that because the institutions are actively involved in decentralizing their medical education programs, in decentralizing their faculty to remote sites, it is just not one department within the institution, it is the commitment by the entire institution, the prime contractor, to work in addressing the geographical maldistribution problem of their area. Because of this arrangement, changes within the institution will continue for a long period of time rather than just having one single department from the institution be involved with a decentralized effort. We think the Carnegie model is good. There are some weaknesses to it, but we think it a good approach and will try to strengthen it.



Mr. Daniel Smith presents the view of AHEC from the Bureau of Health Manpower perspective in Panel #5.

There are some challenges in the future. They are as follows: first, the administration or governance of the AHEC program is a very complex problem which takes a great deal of time and effort. The key thing we have to think about very seriously is the optimum number of AHEC sites which any one prime contractor or any one institution can effectively manage. How many AHEC sites should an institution really take on? At one time the United States took on the world, we were defending the world, and we were killing all our men. I think we have learned a few lessons. The lessons that we have learned as a country should be applicable to what we do in the AHEC program in terms of the responsibility of the prime contractor not overextending himself. We look very seriously at that because that has implications in terms of statewide AHECs and who gets the dollars to do that program, whether it is one institution or four institutions.

A second area we have to look at very seriously is Federal support for institutions and how it relates to private and State-supported institutions. Most of our AHECs are State-supported institutions and have a different type of financial base than private institutions. As we all know, private institutions are having a difficult time, be they medical schools or nonmedical schools.

A third consideration in regard to the future of the AHEC program is what responsibility should the AHEC programs have in support of the really serious problem we have in the geriatric field? There are many nursing homes, there are many senior citizens that really require better attention. This is a service activity, however, if we are not preparing students to appreciate the problems related to the treatment of geriatric patients then we have to challenge ourselves about our educational mission.

As Margaret Gordon indicated, there is the issue of HMOs. I think we have to look very seriously at where, in fact, we are placing some of our students to receive good primary care training. Are teaching hospitals, or the large community hospitals with 300 beds, the only facilities where a resident should take his training? Should we consider the possibility that ambulatory care programs, ambulatory care facilities, neighborhood health centers, HMOs, and group practices really should be a part of residency training and a site for health manpower training associated with the AHEC program?

We also have to think about what happens to the AHEC program which the Bureau has supported after the fifth year. That may depend upon legislation, but that is something that one should seriously consider.

My personal directive to the AHEC program, the administrators and educators here, is, of course, the upcoming audit of your programs by HEW auditors who will be comparing efforts and accomplishments to the dollars of the contracts. As we look to what we have done, I think we will look at what we did in developing the first RFP and what we will plan to put into the new RFP if one comes when funds are available. We have found that the project director of the AHEC needs to put more time into administration than was anticipated. We will also be looking at where the AHEC should be located within the medical school, whether it is the Chancellor's office or the Dean's office. We will also be looking at the issue of advisory councils.

Finally, in terms of the current program activity and your fourth-year money, rest in peace. This will be coming shortly. There are a few administrative details to be worked out, but it is here.

Panel Presentation #5

Dr. Brian Biles

The perspective I would like to consider today is somewhat broader than has been presented so far. I would like to talk about the relationship between AHECs and our health manpower problems: generally I would like to discuss the way we are going to move to solve our broad problems using a variety of techniques.

The overlying theme, is the problem of limited resources. That is, there is simply not as much money as anyone would like to have and hard choices will be necessary. The question really gets to be: how can we spend our money to get the best results?

There are two problems with respect to health manpower. The first problem is specialty maldistribution of physicians. Somewhere in the order of 30 to 35 percent of our physician are in the primary care specialties. A hard look at the percentage of medical students training in primary care, indicates that it is even less than the percentage now in practice. This is a bad situation.

The second problem is, of course, geographic maldistribution of physicians. Here again the situation is very difficult and getting worse. The Department of Health, Education, and Welfare has done a printout of the distribution of physicians by State Economic Areas. The HSEA is a fair sized unit to consider. DHEW found that to bring every State Economic Area up to a 1 per 1,000 figure, 19,600 physicians, almost 20,000 physicians, would need to be placed precisely in the rural areas. It is quite clear that there is also a problem in urban areas, which this analysis does not reveal, which probably demands another 10,000 to 20,000 physicians. The solution to the geographic maldistribution problem is that almost 40,000 physicians must be placed where they are needed.

What about resources? Over the past decade, the Federal government has spent more than $3 billion on health manpower training. What have the people received for that $3 billion? Our schools have graduated 7,500 more new physicians every year. A question is, however, where are those 7,500 physicians going, and what are they doing? The answer is that they are sub-specialists in the suburbs. Over the last 10 years the number of physicians in rural and inner city America has decreased, and the percentage of physicians in primary care has decreased. While the Federal Government has spent $3 billion all that has been produced is an increase in the aggregate number of physicians: an increase which has done little to solve the problems of specialty and geographic maldistribution; an increase which has done very little to meet the needs of the people. The taxpayers' money has not been very effectively spent.

Solutions to these difficult problems must take into account the fact that the Federal Government does not have a great deal of money.

It is likely that the answer to the specialty maldistribution problem will be to establish a system to limit the number of residency positions and then distribute those positions by specialty and by geographic area. This sort of system will allocate many more positions into primary care—family practice, primary internal medicine, primary pediatrics—and over a period of time will also tend to shift residency positions from the East and the West Coasts into the Southern and Midwestern regions of the country. In addition to this system, there will, of course, need to be grants to develop new programs in primary practice and grants to develop and shift emphasis in internal medicine and pediatrics toward primary care.

Concerning geographical distribution, the key to the solution of this problem is some sort of committed service. Since medical education is subsidized by the people of the country to an enormous extent, it is not unreasonable to expect students whose education has been highly subsidized to spend 2 years through one mechanism or another serving where they are needed—in rural areas and in inner city areas.

Programs will also be needed to assist the development of group practices, such as the North Carolina model or the Johnson Foundation model, in rural areas. In urban areas, there will need to be support for neighborhood health centers. There will need to be linkages with centers of medical services—AHECs, HMOs, hospital systems patterned after the Good Samaritan system in Phoenix. There will also need to be further development of mid-level practitioners, such as physician extenders and nurse clinicians.

A point is, however, that group practices, linkages, and physician extenders are not enough. These programs will not produce the 19,600 physicians needed in rural areas or that extra 10,000 to 20,000 physicians needed in inner city areas at any time in the forseeable future. Consequently, the real expenditure of public money will need to be in terms of either ROCT-type scholarships or some sort of capitation tied to a mandatory service arrangement.

Given this perspective, what about support for AHECs? What is the priority? What is the commitment? Since the problems must be solved in the context of limited resources, the key consideration is of the size of the AHEC program. Is a massive AHEC program a solution? Will the specialty problems and the geographic problems be resolved by committing large amounts of money for AHECs? Or is a broader, more aggressive, more coercive approach necessary? Clearly the more aggressive approach will provide a surer solution.

Some claim that AHECs are the solution, that if there is support for AHECs, if medical schools have enough money, the schools will solve the problems. This is, of course, not true. This approach leads not to the solution of the problems, but to the perpetuation of what some have referred to as the American health empire. This empire is a system that does not meet the needs of the people, does not get doctors out into underserved areas, or generate the primary care needed but is rather a system which meets the needs of the medical school establishment.

The key problem right now is that AHECs are being presented by the establishment as the single solution to the problems. In that sense AHECs are being presented as a regressive idea. Under this circumstance the commitment to put resources into the AHEC program will likely be limited. The RMP advocates for over a decade said, "Give us money, give us more money, give us more money", in a situation where they really could not make an impact on the major problems in the system. Now AHEC advocates and the medical school establishment, are saying, "Give us money, give us more money, give us more money again", when the AHEC program cannot really produce the 19,600 physicians in rural areas or the 10 to 20,000 physicians in urban areas.

At this point, the whole question of commitment and support becomes difficult.

It is important to keep the seriousness of the health manpower problems and the limited nature of the resources in perspective. Real solutions are going to take a multiplicity of programs, including a strong program to distribute residencies and a strong program to commit students for service through scholarships or mandatory service. Add to those forceful programs, a program to expand family practice training programs to begin group practices in urban and rural areas, and programs to develop AHECs, HMOs, and hospital-based systems, and with programs to train nurse clinicians and physician assistants, and the whole system fits together.

There will be support for AHECs. But it is only in the context of all of the other programs that AHECs can be successful in contributing the real resolution of our problems.

Panel Presentation #6

Mr. Stephan E. Lawton

Congratulations on a very successful conference. I thank you personally for your assistance and for the considerable amount of time you have spent educating those of us who try to work toward health manpower solutions on the House side, not just toward why the Congress should give money to Area Health Education programs, but toward understanding what health manpower problems are, and what solutions to these problems there might be.

As you have already heard from Dr. Biles and Dr. Swanson, this year the Congressional perspective of health manpower problems was a relatively simple one. Beginning in 1963, when the first substantive manpower legislation was written, and continuing through 1971, the entire perspective was based on two premises. These premises were the need to establish financial stability within schools of medicine and within other schools of the health professions, and the need to solve what the Carnegie Commission and many other people were telling the Congress was an acute shortage of health manpower personnel in this country. The legislation was designed to provide money to the schools of the health professions and to exact, as a quid pro quo for construction grants, and later for capitation grants, increases in enrollment. The legislation worked. All you have to do is consider Dr. Swanson's figures and you know it worked, and it worked from the Congressional perspective. In the past 10 years, we have a doubling of the number of physicians graduating from medical schools, and there will be further increases over the next 4 or 5 years.

Since 1971, the perspectives of the Congress, on both sides of the Capitol, have changed and have changed dramatically. Both Congressman Rogers, the chairman of the subcommittee for which I work, and Senator Kennedy, chairman of the subcommittee for which Brian Biles works, now feel that the emphasis on increases in health manpower personnel has obscured many other, more compelling issues—issues which will be much more difficult to solve, issues which are much more complex than the numbers game. The two most dramatic issues, and the two which will be the most difficult to find solutions for, are those of geographic maldistribution and specialty maldistribution of physicians in this country.

In 35 States, the physician/population ratio in rural areas is about 50 percent of the physician/population ratio in urban areas. In 14 States, there are less than one-third the number of physicians in rural areas than there are in the suburbs and in the urban areas, not including innercity areas. The problem of geographic maldistribution has been recognized as such for more than 50 years, and yet, there has been no improvement at all. In fact, the problem has worsened over the past decade.

Let me give you, however, a caveat to this numbers game in the geographic maldistribution problem. Congressman Rogers recognizes that there will never be, and should never be, absolute parity between the urban areas and the rural areas. There are certain breeds of physicians, such as our friend Gus Swanson and our friend Dr. Thompson, who need to be located near tertiary care centers. There are certain demands on physicians that require location in urban areas. By throwing out these numbers to you, I do not mean to suggest that Congressman Rogers believes there should be an identical physician/population ratio in both rural and urban areas. However, the situation at present is critical. The geographic maldistribution is the number one enemy of proper manpower policy today. It cries for solution, and solution must be forthcoming. Solutions must be addressed by legislation, although legislation alone cannot, in Mr. Rogers' view, provide the answer to geographic maldistribution of physicians.

The second major concern of the Subcommittee on Health and the Environment is the problem of specialty maldistribution of physicians. I think one of the most compelling statistics on specialty maldistribution is the fact that in the only planned type of practice in the country, in the prepaid group practices, or Health Maintenance Organizations, 64 percent of the physicians are in the three primary care specialties of family medicine or general practice, general internal medicine, and general pediatrics. That compares with about 35 percent in the United States today, and with about 30 percent to 35 percent of physicians in residency training programs today. If HMOs, being the only planned system in the United States, provide us with any clue as to the types of percentages we need in primary care specialties, we are badly off base.

The reasons for geographic and specialty maldistribution are obvious to all of you today, or you would not be here. First, it is financially rewarding to practice anywhere in the United States. The American public has an insatiable demand for health care, and there is no such thing as competition in the medical field. A second reason is the life style preferences of most Americans: most of us would rather live in areas that have better schools, better cultural advantages, than many of the rural areas offer. A third reason is, of course, the nature and the location of medical residency training programs in this country. They are skewed toward the subspecialties, particularly the surgical subspecialties, and located predominantly in urban areas which do not have a compelling need for more physicians. In addition, there are too many residency positions offered in this country. As you know, there were 1.7 residency positions available in 1974 for every graduate of a United States medical school.

I would suggest that the first two problems, the problem of financial incentives or lack thereof and the problem of life style, are virtually impossible to influence by legislation; at least, they are impossible to influence by the type of legislation that the members of the Committee I work for find to be compatible with their views as to what the role of the Federal Government should be. On the other hand, the nature, location, and number of medical residency programs are quite amenable to Federal legislation. Our bill, H.R. 5546, is now pending in front of the Committee on Interstate and Foreign Commerce, and will probably be reported out within the next 2 weeks. It should pass the House within a month, and then the focus will shift to the Senate, where Senator Kennedy will hold hearings on our bill, as well as on four other proposals which he has introduced. Our bill contains two features that are of critical concern to you and are of critical concern to the Committee. The first feature concerns Area Health Education Centers. The Area Health Education Centers provisions in the 1971 Act are, to say the least, mushy, containing vague provisions and little direction. In our view, the legislation has resulted in some very good programs and some very poor programs. The legislation contained virtually no requirements as to what Area Health Education Centers must do. It merely described, as the Carnegie Commission report did, what our goal was and then said, "Federal Government spend some money". We have tightened up the requirements for Area Health Education Centers in our new bill, maintaining, however, the flexibility the Subcommittee felt was needed to accomodate different approaches and different recipients of Area Health Education Center money.

The first requirement will be that the only entities eligible for receipt of Area Health Education Center funding will be entities that are affiliated with at least three degree-granting institutions in the health professions, of which at least one must be a school of medicine or osteopathy. Grants will no longer be available to just one school, with just a medical school.

The second requirement is that Area Health Education Centers do three things in order to receive financial assistance after the law is passed. First, the legislation requires residency training as part of the AHEC concept. Fifty percent of the students in residency training programs in family medicine, general internal medicine, general pediatrics, obstetrics and gynecology, and psychiatry, conducted at schools which receive AHEC grants or contracts must receive at least 6 weeks of training per year in remote sites in which the Area Health Education Center or the community hospital is located. Second, each Area Health Education Center would have to make a substantial contribution toward continuing education and multidisciplinary training at the remote sites, and not just at the main teaching site of the medical school. Particular emphasis would be placed on training existing private practitioners, nurse practitioners, and allied health personnel in community settings, such as community hospitals.

Third, each Area Health Education Center would be required to establish and maintain programs for the education of the general population in the area on the appropriate use of health services and the contributions that residents in the area can make without professional medical assistance toward the furtherance of their own health.

Fourth, there is a matching requirement that at least 25 percent of the money for Area Health Education Centers must come from non-Federal sources. This feature was included because the Congress is becoming increasingly aware that Federal programs do not work unless there is a local commitment.

There is a further requirement that AHECs must establish an advisory board, not a governing body but an advisory board, in each of the communities served by an Area Health Education Center which is to have a direct relationship with the people running the Area Health Education Center.

Now, before you get up and walk out and say, "We can't comply," and "Let's go home while our tickets are still good," there is a provision in the House legislation which grandfathers in the existing AHEC contracts for the last 2 years with the requirement that assurances be provided that by June 1, 1977, the Area Health Education Center will comply with the provisions of the law in the House bill. The legislation contemplates and the report language will make clear that following the 5-year contract, a Center would be eligible for additional funding if it complies with these requirements.

The second feature of the House bill which I will discuss, the most important feature in my view, establishes for the first time a mechanism to control and plan the medical residency training programs in the United States.

One result of far too many medical residency training positions has been that hordes of foreign medical graduates, many of them ill trained, many of them not competent in the English language, have streamed into the United States to fill these residency positions, then converted their J visas to permanent visas and remained in practice in the United States. They provide substandard medical care by virtually everybody's standards.

The lack of control over residency programs has also contributed substantially to the specialty maldistribution problem, in that, except for family medicine, one of the three most important primary medical specialties today, students can become any type of specialist they want to. Thus, it is easy for students to get into the surgical subspecialties. It is easy for students to look at the financial rewards, and the fewer hours, in some of the nonpatient care specialties. There is currently no barrier to this.

The third problem with the medical residency training programs is their location in urban areas. As you know, one of the important influences in the ultimate location of physicians is where they received their postgraduate training.

Our legislation would require a gradual limiting of medical residency training programs in the United States based upon the number of graduates of United States medical schools in the prior year, so that by 1980 the number of residency programs in the United States cannot exceed 125 percent of the number of graduates of U. S. medical schools in the preceding year. The legislation requires that the Secretary of HEW establish one entity to designate medical residency programs. It affords the right of first refusal to the CCME, which as you know is composed of the AAMC, the AMA, the AHA, and the specialty boards and specialty societies. The legislation allows the CCME to submit an application to run this program by August 31, 1975. There is some question as to whether the CCME will want to do it. If they do not want the responsibility, then the legislation requires the Secretary of HEW, assisted by a 21-person advisory board, to designate medical residency training programs.

There are three principal guidelines in the legislation which are extremely important to you. First, the designating entity, be it the CCME or HEW, must afford particular attention to four specialties: family medicine, general internal medicine, general pediatrics, and obstetrics and gynecology. The report language suggests that at least 50 percent of residency training programs should be in the first three specialties, and at least 6 percent in obstetrics and gynecology. The second requirement is that medical residency training programs be distributed "equitably throughout the various geographic regions of the United States." This is an attempt to transfer many of the medical residency training programs from the Bostons and the Los Angeleses into areas which, on a geographical basis, need physicians in patient care more acutely. The third, and I suppose from your standpoint the most important, requirement is that special consideration must be given to medical residency training programs which are part of Area Health Education systems funded under the Health Manpower Training Act. This is a direct attempt to have more medical residency training programs run in conjunction with Area Health Education Centers.

It is obvious that remote site training is looked upon by the House of Representatives as one solution to the problem of geographic and specialty administration. There are, of course, other solutions. The solution developed by the Senate Committee last year, which was defeated on the Senate floor, was in effect mandatory service. The solution on the House side is to expand dramatically the National Health Service Corps scholarship program from a level of only $3 million 2 years ago, to $40 million next year, $80 million the year after, and $120 million by 1978. Congressman Rogers' view is that if these amounts are authorized, and if these amounts are appropriated, they will be gobbled up by health professions students. The scholarship program is very attractive, and the concept of voluntarily serving your country for two years in a remote site does not seem to be repugnant to many medical students today.

Area Health Education Centers have not as yet proven they can solve geographic problems. You admit they have not proven themselves, and you are very candid in that. There is some anecdotal evidence they will. There is some fairly firm evidence coming out of the University of Washington and their WAMI program, of which Dr. Swanson was one of the prime architects, that remote site training programs are having an influence on the specialties students go into and upon their locating practices in rural areas. On the House side, Congress is satisfied enough, I think, to grandfather in the existing AHECs and to expand the AHEC concept based upon the AHECs that we know best. The alternative—to not expand the AHECs and to not influence undergraduate and graduate medical curriculum—is viewed by many as mandatory service. This is a concept which is repugnant to the Subcommittee members for whom I work, or at least to most of them. It is a concept which would cull out for the first time since the Civil War one class of our citizens to perform nonmilitary service.

You have a mission. The legislation, if enacted, will give you a new mission. It will give you an expanded mission. In expanding the AHEC concept, the House of Representatives has said, "You look good; your future is good." In 3 or 4 years, you will be back, and when you are back I think the Congress will ask what you have done about specialty maldistribution and geographic maldistribution. Understandably, a program embarking on its fourth year cannot produce data showing success. However, it should be prepared to produce that data after 8 years. If the AHEC program could not produce successful results in that time, my view would be that the Congress probably would have a very difficult time committing itself to continuing the concept with what we all admit are very scarce Federal funds.

Audience Questions and Discussion

Dr. Charles M. Cargille, North Dakota: In addition to being Director of the Northwest Area Health Education Center, I am also President of the World Population Society. I asked if I could make a very brief statement of ten or twelve sentences, and I would like particularly to ask Mr. Lawton if he would respond from the environmental perspective of the House Committee. As we look, 10, 20, or 30 years down the pike, there is another important determinant of the quality of health care which has not yet been mentioned in this conference. This unmentionable determinant is excessive and rapid global population growth. Now, roughly speaking, there will be about 5 billion people in 1985, about 6 billion in 1995, and roughly 7 or 8 billion by 2005. If the global carrying capacity is only 5, 6, or 7 billion people, as most ecologists, I think, now believe, we will be exceeding these limits within 30 years, or less. This will result in system breakdown in a variety of forms. I am convinced that system breakdown will have a very harsh feedback effect upon the quality of health care delivered to the American people. Health planners, including AHEC leaders, should, in my judgment, do two things. First, explore the mechanism by which health care will be adversely affected by system breakdown from overpopulation, and secondly, consider program initiatives now in order to prevent this from happening. I would like to propose that an official working group be designated to study this issue, prepare reports, and propose corrective action. If such action is not initiated, although AHEC will undoubtedly succeed in the short term, it will fail completely in the long term future. Indeed, we may anticipate an end to the delivery of health care at all.

Mr. Stephan E. Lawton: Our committee has taken some initiatives, albeit limited, to try to correct the concerns which you have expressed. The principal initiative was back in 1971, with the family population and family planning legislation, and that legislation, of course, is only directed at this country. The legislation has resulted in hundreds of family planning centers that were not in existence only 2, 3, or 4 years ago. And that authority will be extended for 3 years in new legislation that has already been reported by our committee. So, from the national perspective, as opposed to the international perspective, our committee has, at least, made some movements in the direction you advocate. It also, as you know, has adopted extremely significant legislation in respect to clean air, brand new legislation last year with respect to safe drinking water, which will, in my view, in the next 5 years be just as important and just as controversial as the clean air act. On the international level, frankly you are talking to the wrong people. I suppose you could talk to the Foreign Affairs Committee. I fear that I cannot respond to your question on an international basis, but I think that the members of our subcommittee recognize that mere access to medical care is only one in a long series of things that must be required to insure the health of the American people, that indeed geographical access to medical care is not the most important factor in determining morbidity and mortality, and probably environmental concerns are more important than geographical access to medical care.

Dr. Theodore R. Reiff, North Dakota: There was an interesting and important discussion about geographic maldistribution, but one problem of geographic maldistribution has been neglected: those people who are geographically maldistributed, within our existing communities, by being in long term care institutions. This applies to a lot of young members of our population and to a great number of people in our population who are 65 and over. Approximately 5 percent of the population aged 65 and over, at any one time, is in a nursing home. The estimates are that 25 percent of all older people will, at one time or another, end up in a nursing home. And yet, none of the discussions have centered around health care delivery to those often neglected areas. Senator Moss held hearings in New York which centered more on the economic aspects and abuses, from the administrative point of view, of nursing homes. Practically no attention has been paid to levels and standards of medical care in nursing homes. I wonder if there is any commentary or direction of efforts in those areas.

Dr. Thompson: Well, if I may, using the prerogative of the Chair, try to limit the focus. The thrust of the Area Health Education Center programs has been essentially and importantly on education. We know that our direct mission is not in services. However, service follows education, so I think it is not surprising that we have had, thus far, modest impact on problems such as health services in some of these areas you designate. Keeping our mission clearly in mind, that we are an innovative attempt at new forms of health education, I wonder if anyone on the panel would like to respond to the question just asked.

Dr. August Swanson: I would like to make a comment. I think one of the things that has inevitably molded our educational system has been the form of the health delivery system, and I alluded to that earlier. I think that one of the things that happened with the Medicare legislation was it set up a system which took the nursing home out of the educational system. It pandered to those individuals who would develop proprietary nursing homes. It did not pander or provide opportunities for nursing homes to remain within what I would call the educational area. In an instance that I discussed last night at dinner, we had to close an excellent learning facility, which was taking care of people in the extended and nursing home mold, because under the rules an educational institution like ours could not provide those services, and so it disappeared. I think that in the future one would hope that as national health insurance evolves, the possibility will be provided so that we can have extended and long term nursing care facilities as part of the educational facilities of the academic medical centers and their extensions.

Dr. William A. Strickland, Missouri: I would like to place the matter in perspective for a moment. The AHECs here represent about 10 percent of the medical schools in the United States, and I suppose about 5 percent of the geographic area of the United States, and even where we have AHECs, such as ours in western Missouri, the funding we have to work with represents about one penny for every 10 dollars of health care enterprise expenditure. I think there is a limitation on what the AHECs can be expected to accomplish in this perspective.

Where we do have Area Health Education Centers, I hope that we can work with the National Health Service Corps. However, I would like to focus attention for a moment on the character of rural counties which makes success difficult for the corps physician. In our area, we have 33 rural counties, with populations from 4,000 to about 15,000. To expect a young practitioner to make a continuing impact in rural counties is, in my opinion, a difficult assignment. The basic problem is the lack of supportive services and professional stimulation. I would like to ask Dr. Biles if there is a perspective here on what can be accomplished when you physicians are assigned to remote and rural areas.

Dr. Brian Biles: Well, I think there is a perspective, and first of all I point out that the ratios I referred to were really not counties, but were state economic areas, and they are much larger. I think it is reasonable to expect adequate physician supplies in these larger areas. I think counties are probably too small, but the economic areas are of reasonable size. Secondly, are we going to put these physicians out there in towns of 600? The answer is, of course not. But we have had counties here in North Carolina, I understand, of populations of 17,000 people without a physician. I think what is actually happening is again if we get, perhaps, 10,000, 12,000, 20,000, or 30,000 physicians in the National Health Service Corps, these people will not be put out with a single physician in a town of 600. They are going to be put out in groups of fours and sixes. Maybe when we get into the innercity areas, we will put them into the neighborhood health centers in groups of 10, 15, or 20. I think when we get these group practices set, then we will need AHECs, and we will need HMOs and we will need hospital based linkages. So, I think it is a coordinated program, but what I sometimes hear being said, again by the medical school establishment, is well, you know, if we do AHECs we don't need to do anything else. If you just give more and more of our scarce resources to the medical schools, we will not need to do anything else. I just think it has to be more aggressive than that. If the resources are limited, we have to decide how to spend those resources most effectively.

Dr. David Kindig: We have just completed analysis of the first 150 corpsmen who went out in July, 1972, and whose obligatory 2 years was up in July, 1974. That initial process was a highly arbitrary one in terms of matching. The draft was on, and we could send people pretty much where we wanted to. Of those 150 people, one-third elected to stay for another year. Of all the factors, among the people who chose to leave, two predominated: first, a number left because they had not finished their training, so they went back to training; and second was the question of professional isolation, the lack of linkage into hospitals and into medical schools. As far as the first factor, we are trying not to take people into the corps anymore who have not completed a residency. As for the second, I am going to look into the arrangement of the AHEC program. At least in AHEC areas, we have a way to reach out to corps personnel and try to keep them there. You cannot just put them there without a system to support them, or you will just be rotating people through every two years. There is no question that that is our experience.

Mr. Don Arnwine, West Virginia: In the original funding for the Area Health Education Centers, I believe it is correct, Mr. Smith, that the funding of house staff stipends was specifically precluded. Is that correct?

Mr. Daniel R. Smith: Partly.

Mr. Arnwine: Mostly, would you say?

Mr. Smith: Well, there were certain requirements to receive money for stipends, and some institutions received them and some did not, for different reasons.

Mr. Arnwine: Well, this is something that I am very concerned about if we are to achieve the goals that I think were very well outlined by Mr. Lawton and redistribute the house staff training programs which, hopefully, in turn, will result in a redistribution of health manpower. This has and will, increasingly, place a burden on the economics of the community hospital, and there are many, many pressures presently upon the funding of community hospitals as they must compete with other community hospitals. There are increasing efforts on the part of the various funding programs—Medicare, Medicaid, commercial insurance, Blue Cross—to reduce the levels of funding. So, if those hospitals that are particularly involved with AHECs assume increasing house staff expense responsibility, there is going to have to be some recognition, either forced upon those people who are presently reimbursing those hospitals, or via some special funding. I wonder if there had been any particular consideration of these issues in Congress.

Mr. Lawton: The House bill, a program for the funding of medical residency training programs in family medicine, is continued at substantially expanded levels for fiscal years 1976, 1977, and 1978, at, I believe, $40 million per year. That is the only medical specialty that is being funded in the House bill, not so much because of a preference for family medicine over general pediatrics and general internal medicine—and I certainly do not want to get into that debate—but because of the fact that medical residency training programs in family medicine are young and need more experienced faculty than we have right now, and need the impetus to begin and to be able to compete with some of the other programs. So, as far as family medicine goes, yes, there is help on the horizon. As far as other medical residency training programs go, no, except that there is a hangover from programs that were initiated right after World War II to fund programs in psychiatry. That funding is diminishing, and in my view it probably will terminate within the next year or two.

Mr. Smith: Mr. Lawton, am I correct that in the AHEC portion there is provision for stipends for residents?

Mr. Lawton: Not to my knowledge, and I read it this morning. I do not think so.

Dr. Biles: I would just like to suggest that this is really a financing problem and really will probably be dealt with most adequately in terms of national health insurance. And I think that some of the grant programs that Mr. Lawton mentioned, hopefully, will take us through the period and provide some support for a lot of the programs until we get there. But the real answer, I think, is going to have to be in terms of the provisions of the national health insurance bill.

Dr. Margaret Gordon: Let me follow up with one general comment and a question to Mr. Lawton. It seems to me that it is extremely important to recognize that we cannot solve all of the problems of geographical maldistribution or specialty maldistribution within health manpower legislation, and I am glad to hear Dr. Biles, now, say that some of this is going to have to be solved through national health insurance, because as an economist I see constantly a relationship between the system of financing medical care and the legislation through which we seek to influence the education of health manpower. I wanted to ask Mr. Lawton, because I am really puzzled, about a national system of control and planning of residency programs. I see a basic difficulty there. If there is a dearth of residency positions in small towns and rural areas, that is in part a financing problem. Who is going to pay for those residents? And I cannot quite envisage a national allocation system working out without some careful attention to the financing of the residencies.

Mr. Lawton: Let me answer the question about residency funding first. The bill does have a provision authorizing stipends for students, basically for housing and for food, while they are being trained in Area Health Education Centers, as part of their residency training, but this provision should not be construed as authorizing monies for the residency training programs. The response to your question would be this: I did not describe the legislation in complete detail because I felt I was going over my time. The number one thing to remember is this: The first thing that a medical residency training program has to be, before it can be designated as one that may operate in the United States, is that it has to be accredited, and obviously you are not going to have accredited medical residency training programs in towns of 600 to 10,000. You do not have the supportive services to sustain it. Our view is that the Area Health Education Centers can be used dramatically. The main focus of residency training programs will be in a teritary care center, but with considerable focus being, also, rotating the residents through community hospitals in the smaller areas. I did not want to imply that a medical residency training program would be in a town of 600 to 10,000, and that this would be the only place where a student would receive his medical education. This is impossible and absurd, in my view.

Dr. Swanson: What we are dealing with, in some ways, as you can see in this debate that is going on between the medical school establishment and some of those who make policy on the Hill is, I believe, a question of where the pendulum is right now. If one takes a stroboscopic shot and photographs a pendulum, you cannot know whether the pendulum is moving up or moving down. It is my view, and the view of many of us in medical education, that the pendulum to which I alluded here, with the increase in aggregate numbers and the change in pattern of specialty training, is moving in the direction that is desired by all. The problem I think we face is that many people are too impatient regarding how rapidly that pendulum should move. There was a discussion by Dr. Biles regarding the fact that we have spent $3 billion, which I believe is slightly exaggerated in medical education, and we still have not solved the specialty distribution problem. Well, one of the problems is, of course, that we still have not gotten those students out of school or out of their training programs. Today there are about 6,000 students in primary care medical training programs in this country, 2,000 of them in family medicine. And 2,000 people in family medicine have not yet seen the light of day in terms of our ability to assess what they will do to both geographic and specialty maldistribution.

Dr. Claude W. Drake, North Carolina: I represent the dental school in Chapel Hill. I would, first of all, like for everybody in this room to know how happy our relationship has been with the other health science schools in Chapel Hill. And that is true, I think, for the local AHECs as well. I think in the beginning it was really important for us to develop our separate programs, and we have done an excellent job in doing that, I believe, but I think that now is the time for us to start looking to interdisciplinary training as part of the AHEC process. Again, I think the directors of the AHECs in North Carolina approve of this. I think if we do entice health professionals to go to remote, underserved areas, and the physician opens up his office on one side of the cornfield, and the dentist builds his office on the other side, and the pharmacist opens up a small shop, how much have we really done to improve health care delivery? If you just take one aspect our population, and that is the geriatric population: dentists have not traditionally cared for these people as much as we should have, or the way we should have. We refer them to VA hospitals, to primary medical centers, or we do not treat them at all. Obviously, we need the help of physicians and pharmacists, and anyone else we can find to help us treat these people when they come into our office. They are likely to be administered drugs or local anesthetics, if nothing else, and subjected to a fair amount of stress, so we need the help of everybody to effect good patient care for these people. On the other side of the coin, the family physicians do not know where to refer these patients for dental treatment. I think the only way we will ever bring about this kind of interaction is during the training process. It has to start there, and if it does not, it is not likely to happen. I think AHEC is our only hope for this to happen. I do not think it is going to happen at the medical school and the dental school level, at least in North Carolina. So, I would like to urge all of you who are in policy-making positions to help us to relax the fences that we have built around our various schools training programs and to help us to bring this about in the AHEC process.

Roundtable Reports

Allied Health

Dr. Neva Gonzales
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St. Cloud, Minnesota

Each participant introduced himself to start the roundtable. During this process, it was found that there were indeed a great variety of participant backgrounds which represented many occupations from many types of institutions.

The roundtable leader then proceeded to outline some national and State (Minnesota) developments in the field of allied health.

At the national level, there has been increasing recognition of allied health personnel and the fact that such personnel function at all levels—from purely technical to independent. Some major issues have been problems of role definition, credentialing and accreditation, as well as the issues which impinge on all health-related workers: PSROs, National Health Insurance, Health Maintenance Organizations, and policies regarding third party payment of fees. In an attempt to address these and other issues, national allied health organizations were formed. Perhaps foremost among them as a voice for allied health has been ASAHP. Formed by the deans of 13 allied health schools in 1967 as the Association of Schools of Allied Health Professions, it became the American Society of Allied Health Professionals in 1973, in an attempt to broaden its scope and influence. Another group which has had significant impact is one with more limited objectives: the Coalition of Independent Health Professions (CIHP). Formed in 1970, CIHP, is composed of the professional societies representing eleven types of independent allied health professionals, such as clinical psychologists and physical therapists.

In Minnesota, attempts on the part of a group of allied health educators to form a State chapter of ASAHP failed after one and one-half years of discussions. The coordinating functions which would have been carried out by such a group may be accomplished by another means—through the federally-funded Inter-Agency Task Force made up of staff from the State Department of Health, the State Health Planning Agency, and the Higher Education Coordinating Commission.

To focus more directly on AHECs, the group was reminded of the three original goals of the AHECs with relation to allied health: (1) the continuing education of allied health professionals already working in the target area, (2) providing clinical experience for University Health Science Center allied health students in the target area, and (3) assisting target area educational institutions in developing their own allied health programs. In the case of the Minnesota AHEC, the first goal, and to a lesser extent the second, were being realized, but there has been little activity directed toward the third. Discussion revolved around three topics: (1) the need for more cooperation among educational institutions and greater articulation of programs, (2) the need for more generally educated allied health professionals, i.e., for a reversal of the trend toward specialization, and (3) the status of accreditation of allied health programs.

The need for more cooperation among educational institutions and greater articulation of programs. Ruth French of the University of Illinois cited the medical technology programs in the Chicago area as an example of cooperation which has permitted standardization and articulation of the programs. Another example given was the sharing of ideas by means of conferences which occurs within the North Carolina and South Carolina system of AHECs.

The need for more generally educated allied health professionals, i.e., for a reversal of the trend toward specialization. In the Minnesota target area, there is a great need for rehabilitation workers in nursing homes and small rural hospitals. However, it is not feasible for these institutions to hire an occupational therapist *and* a physical therapist, on the basis of patient census and economics. What *would* be practical would be a rehabilitation generalist. Dr. Fairchild stated that this situation was not unique to rural areas, and that it is necessary in his large city pediatric hospital situation to train allied health professionals other than RT's to take X-rays.

The status of accreditation of allied health programs. The questions of accreditation of allied health programs and the ability of individual students to gain recognition at an educational institution for training acquired at another institution were brought up. Ruth French again cited the group of medical technology programs in the Chicago area as an example of how the latter question might be answered. Regarding the general question of accreditation, it was pointed out that ASAHP, along with the American Medical Association and the National Commission on Accrediting, sponsored an analysis called the Study of Accreditation of Selected Health Educational Programs (SASHEP). The major recommendation of SASHEP was to establish a joint council for accreditation, in an effort to reduce duplication and confusion in the field.

Nursing

Mrs. Carol M. Eady
Coordinator for Nursing Education
Illinois Area Health Education System
University of Illinois
College of Nursing

Participants were asked to briefly describe the AHEC program in nursing with which each was affiliated before addressing prepared discussion topics.

Arizona. Miss Pourier spoke on the nursing component of the "AHEC for the Navajos." Based on community concerns, the Navajo Health Authority established a committee of Indian RNs and in June, 1974, the first Annual Nursing Education Conference was held. Major issues were: the need for continuing education, problems of career mobility, and recruitment and retention of nurses. Subsequently, a Nursing Education office was established under AHEC to give consultation and participate in program planning.

The major problems related to the fact that 95 percent of nurses giving care to Indians are Federal employees and cannot receive educational services under AHEC.

The lack of educational programs in nursing and the great need to update older RNs from programs no longer in existence was stressed. There are four LPNs for each RN in the region, which demands that LPNs practice beyond their level of preparation. The need for career mobility and continuing education presents an insurmountable obstacle with little financial resources and no available faculty.

Missouri. Dr. Major presented the objectives of the nursing component of the University of Missouri AHEC:

1. To develop, implement and evaluate 20 workshops and short courses per year; eight teaching packages and a list of qualified speakers.
2. To develop placement examinations for diploma and associate degree graduates, involving all five baccalaureate programs in the region in the hope that they will be acceptable for advanced placement all in five programs.
3. To provide teaching/tutoring needed for Nurse Associates to attain a MSN.
4. To plan with the school of medicine to provide outreach preceptorships for Masters nursing students.
5. To design protocol for the establishment of four quality assurance programs.

Texas. Miss Donna Barlow described the University of Texas AHEC area extending 400 miles along the Mexican border. In this area there are only 123 RNs. A Nursing Advisory Committee has been established and subcontracts have been given to three junior colleges and one hospital. Local advisory committees identify needs for continuing education and faculty from the University of Texas School of Nursing at San Antonio present related programs in cooperation with the ADN programs in South Texas. The goal is to establish the junior colleges at the educational centers to carry on this effort after the AHES contract ends. The University of Texas has Program Associates in each of three regions. These satellite centers are located at Laredo Junior College, Pan American University, and Driscoll Foundation Children's Hospital.

A baccalaureate outreach program is being developed for RNs in the South Texas AHEC area. This is a temporary arrangement between the University of Texas, Texas A and I University at Laredo, AHEC, and Laredo Junior College, with the goal of initiating a baccalaureate nursing program at Texas A and I. The Outreach curriculum was implemented in January 1974.

North Carolina. Dr. Booth discussed the development of joint funding by the North Carolina legislature to facilitate extension of the AHEC effort of the University of North Carolina at Chapel Hill to nine AHEC regions. Each has at least one nurse in the regional office, most appointed to the university faculty and mutually selected. There are eight Baccalaureate programs in nursing involved in the project. In each region, the local university work with the AHEC nurse as coordinator and facilitator. Chapel Hill has immediate responsibility for first level resource backup in five of the nine AHECs, but will delegate this responsibility to the regions as soon as they are ready.

In Charlotte is located an outreach program of the Chapel Hill BSN program and a Masters program in Medical Surgical Nursing. Continuing education programs and Family Nurse Practitioner programs are part of this AHEC effort.

Illinois. The Illinois AHEC nuring component was discussed by Dr. Cohen, Miss Rossi and Mrs. Eady. The University of Illinois College of Nursing assumes responsibility for this program in three of the four governor's planning regions in which AHES is involved. In each of these regions nursing advisory committees have assessed the nursing education needs and recommended program.

In Region 1A, a Steering Committee has been appointed and is advisory to the Area Health Education System endeavor in that area. An advisory committee on nursing education has also been appointed. Needs and resources were studied in this region and it was determined that the primary need was for a baccalaureate completion program for registered nurses. Planning began with the varied educational programs in the area to utilize the resources already existing within the community itself. Northern Illinois University School of Nursing had offered extension courses in the Rockford area for some years. They were willing to bring the total baccalaureate completion program to Rockford by means of a subcontract with AHES. Beginning in the fall of 1974, Northern Illinois University School of Nursing began to offer three courses each semester in Rockford, carrying credits in the NIU School of Nursing Bachelor of Science Degree sequence, with a major in nursing. Sixty students are presently enrolled. The demand is so great that a summer session of six courses will be held this year.

The two diploma schools in this region have developed with Rock Valley Junior College a common curriculum in the biological and physical sciences carrying transferable credit into the Northern Illinois University baccalaureate completion program.

In Region 1B a Nursing Committee existed at the time the AHEC project was initiated. This committee decided to align itself with the AHEC project and became the AHES Liaison Committee on Nursing. A study of the need for nursing education in Region 1B resulted in establishing a graduate program in that area. Peoria has two diploma schools of nursing, one associate degree program, and one baccalaureate degree program. There were no graduate programs in nursing in the area. Consequently, many on faculties of existing schools of nursing and nursing service personnel involved in inservice education and administration within the region lacked preparation at the graduate level.

A survey of nurses with baccalaureate degrees revealed that the greatest need was for graduate preparation in medical-surgical nursing. The survey data also indicated that public-health nursing, including family nurse practitioner preparation, was also greatly needed.

Graduate education in nursing was extended to Peoria by the University of Illinois, College of Nursing, beginning with the medical-surgical nursing clinical sequence. Eleven students are now enrolled.

The public-health nursing sequence is now in the planning stage. Students will be admitted in the fall of 1975. Planning with physicians and persons in related disciplines has been ongoing from the beginning of the project. In all programs conducted by the College of Nursing in the AHES regions, collaboration with other educational institutions within the area has been essential to the success of the project. Courses in these institutions are identified which prepare the student for admission into the program offered by the College of Nursing. Students are counseled into these courses according to their individual needs.

In Region 3B a Nursing Committee was appointed to be representative of all aspects of nursing service and education and also representative of the educational and service institutions in the region. A study of interest and need resulted in establishing on the Champaign-Urbana University of Illinois campus the fourth year of the baccalaureate program which is offered by the College of Nursing on the Chicago campus.

Three full-time faculty members of the College of Nursing are assigned to this campus and have planned and are implementing and evaluating this program. In collaboration with regional educational institutions, courses have been identified which are suitable for students completing admission requirements. Approximately 70 nurses are enrolled in these courses.

Courses presently offered at the University of Illinois, Urbana-Champaign campus, were reviewed to determined whether or not they meet objectives of the nursing curriculum. We are now in the third year of the project and 34 nurses are enrolled. In all of the courses offered in Region 1B and 3B, appropriate clinical resources have been made available in collaboration with service institutions in the area.

The need for an expanded continuing education program in the AHES regions was evident from the beginning of the project. The University of Illinois is committed to a system of continuing education and public service throughout the state and the College of Nursing has assumed this responsibility for nursing, acting as an arm of the AHES effort in the AHES regions. A faculty member of the College of Nursing is located in Urbana (Region 3B) with the responsibility to work with the nursing committee to assess needs and organize and implement a program in Containuing Education. Recruitment for similar positions in Rockford (Region 1A) and Peoria (Region 1B) is on-going.

Following these preparations, the group was referred to a list of issues which included

1. The nursing component in relation to the AHEC structure and the college/school of nursing.
2. Interinstitutional governance. Relationships in the regional setting.
3. Development of interdisciplinary activities.
4. Impacts of program on nursing in the communities and on systems of nursing education in the regions.
5. Budgetary concerns.

Dr. Wesner presented the nursing education AHEC effort in Rockford, Illinois (Region 1A). He discussed the problems of upward mobility for graduates of diploma and associate degree nursing programs. The problems were presented of the Region 1A Nursing Committee in attempting to identify the differences between capabilities of graduates of different types of programs. He felt that nurses should be able to identify specific educational needs so that local colleges could meet them.

The group asked Dr. Wesner if perhaps the problem was that nurses prepared at different levels were not utilized at different levels.

Miss Pourier stated that her AHEC's problems were much more basic—a need for nursing education programs and resources for continuing education.

Budgetary concerns were expressed. There seemed to be a misunderstanding of items acceptable for funding. One State received stipends for students in a special program. Indian students received scholarships. In some States faculty salaries were covered.

The concerns about continuation of this effort beyond the contract were discussed. In the centers where several hundred nurses are involved in baccalaureate completion programs and masters programs over a period extending beyond the contract, plans need to be made now to continue these programs. The group was urged to go to State legislatures now to assure continuation of these programs beyond the AHEC contract.

Dr. Jacobs discussed hospitals' fears about "overcredentialing" of nurses because costs will go up. Miss Barlow asked if the BSN nurse could not more adequately meet the patients' needs. Dr. Jacobs stated that physicians do not accept the idea of the nurse on the health team. Dr. Wesner stated that nurses cannot tell us what a nurse with a BSN can do better than one with a diploma. Miss Barlow replied that hospitals policies often do not allow the nurse to do what she can do.

Pharmacy

Dr. Robert A. Sandmann
Assistant Dean, School of Pharmacy
University of Missouri at Kansas City

Initially it became obvious that few AHECs had Pharmacy components. Therefore, the University of

North Carolina's program was described by Mr. Paoloni and subsequently the UMKC program was described by Dr. Sandmann as an introduction to the session and with the intent to find common goals and areas of emphasis which may be applicable to AHEC nationally.

North Carolina AHEC Pharmacy Program

The University of North Carolina School of Pharmacy has in addition to its programs for undergraduate and graduate students, maintained an active program in continuing education for the pharmacists of the State. This has included programs oriented to the needs of hospital-based pharmacists as well as retain pharmacists. In addition the School has actively participated with members of the other health sciences schools in preparing and presenting programs relating to the needs of nurses, dentists, physicians and other health professionals for accurate, current information in the broad area of drug usage with all of its many ramifications. The AHEC is seen as providing an ideal arena for bringing together the somewhat diverse array of health professionals having need of current information on drug usage and providing an effective coordinated program of education meeting the needs of each group.

In addition, the School has developed an action program in which its undergraduate and graduate students have the opportunity to receive part of their training in the community setting. The AHEC provides an ideal mechanism for further developing and advancing the program. One of the main goals of these community experiences is to expand and demonstrate the role of the pharmacist as an integral part of the health care delivery team by bringing his extensive knowledge of drugs to bear on clinical problems in a systematic and coordinated manner.

The School also sees the AHEC as providing an ideal arena for further exploring and developing the role of the community-based pharmacist as a provider of primary health care services in an integral system of health care. Traditionally, the pharmacist is often the first point of contact of the patient with the health care system. He can (and to some extent, even now) does serve as a portal of entry into the system as he refers to physician's patients who, even in the early stages of their health problems need the physician's attention but who are engaging in self-medication as a more convenient alternative. Too often, in the traditional "non-system" the pharmacist is isolated from the other providers and, therefore, cannot effectively bring his considerable skill and knowledge to bear on the problem presented. By integrating the community-based pharmacists into the primary health care system and better developing his clinical skills, he can properly assume a larger role in the counseling of patients, in managing acute minor symptomatic illness, in identifying and advising on problems of drug incompatibility and interaction, and helping to develop more effective systems for dispensing and administering medications to patients and advising patients on the proper and appropriate use of drugs. The AHEC can provide the framework in which this role can be further expanded and developed.

Objects of the Pharmacy Program include:

1. Have pharmacy students serve rotations in AHEC.
2. Have graduate pharmacy students receive partial training in AHEC area.
3. Have residency program for post-baccalaureate training in specialty areas of pharmacy.
4. Provide faculty appointments for those teaching pharmacy in AHECs.
5. Provide continuing education for pharmacists in AHEC and its service area.
6. Provide the pharmacist, as health matters communicator, with ability to effectively communicate with patients to improve their compliance with drug therapy.
7. Develop training program to prepare pharmacists to work at the community level in primary care, under physician's supervision or standing order, provide treatment, refer patients to physicians when appropriate, and to follow progress of patients with chronic diseases in maintenance drug therapy.
8. Develop methods of surveillance of drug therapy practices in the AHEC areas.
9. Recruit for pharmacy admission so as to give equal opportunity to women, minorities and persons from underserved areas.

Western Missouri AHEC Pharmacy Program

The University of Missouri at Kansas City School of Pharmacy's Program is divided into three areas of emphasis. These areas were either initiated by the AHEC or were programs enhanced and expanded utilizing these regional concepts. These areas of emphasis include an externship program, continuing education, and a drug information service.

Externship Program

This is designed to place students in the 38 counties of WMAHEC for periods of 4 to 8 weeks. Selected practicing pharmacists designated as Teaching Associates, will supervise the pharmacy student's perfection of dispensing and communication skills. These skills are to be perfected in a variety of pharmacy practice settings; hospitals, community pharmacies, skilled nursing facilities, etc. The student is to receive a total learning experience as broad as possible in keeping with his beginning level. The program is to accomplish the following:

1. To perfect the pharmacy student's ability to communicate with patients and physicians and other health professionals concerning medications and related health matters.
2. To perfect the student's ability and skill in processing and prescription or drug order (receiving, filling, checking and dispensing) and the use of reference material in solving problems encountered in practice.
3. To familiarize the student with drug products.
4. To familiarize the student with the various laws governing pharmacy practice and to show how practicing pharmacists abide by these laws.
5. To familiarize the student with third party payment plans.
6. To show the student how to use patient medication records, to monitor drug usage and how to deal with drug interactions and drug misuse.
7. To perfect the student's ability to advise the patient concerning OTC products.
8. To familiarize the student with the procedures necessary to the sound management and operation of a pharmacy.
9. To show the student the professional attitude necessary to the practice of pharmacy, the concern for the patient and the roles of the pharmacist.
10. To give the student structured experience in community and institutional pharmacy.

To achieve these 10 items, the student is assigned for a 4-week period to a Teaching Associate who is responsible for supervision of the learning experience. The Teaching Associate is to be the student's teacher, thus, the relationship between them is to be one of teacher-student rather than employer-employee. The Teaching Associate is responsible for insuring that the student has the opportunity to observe, to *participate* in and to *study* the various facets of the learning experiences appropriate to his practice situation. Further, the Teaching Associate is to act as counselor and guide to the student and should seek to develop the student's awareness of issues, problems and opportunities of the profession in the locality.

Study packages which might include audio tapes, reading materials and study questions will be supplied at evenly spaced intervals. The packages will be care-oriented and will review pharmacology, therapeutics, drug interactions and adversities, patient instruction, etc. Study packages will usually emphasize outpatient care. Students and Teaching Associates will work jointly through the instruction unit, reinforcing each others learning. Students will bring the latest information from their classes at school. Students will be able to relate situational experiences to a formal study lesson, thus reinforcing the learning nature of the externship experience. Over a 3-year period Teaching Associates will complete 14 self-study units which should constitute a comprehensive review of significant areas of drug therapy for which the practicing pharmacist may receive continuing education unit credits.

Continuing Education

Continuing Education programs are presented in an interdisciplinary type of programming. The intent is to prevent isolation of the pharmacist from other health professionals and thereby improve communications and hence patient care. In addition programming emphasizes the role of the pharmacist in *direct* patient care. For those pharmacists who are unable to attend formal continuing education programs, self-learning packages are developed and distributed by this component.

Drug Information Service

This service maintains eight regional and one central drug information center in WMAHEC to provide drug information to all health professionals. In addition the central center is currently being utilized to provide extensive laboratory experience for students at the school.

Discussion

A large part of the discussion centered on the actual experience so far achieved by the above described programs. It was felt that these experiences would eventually provide some insight as to whether or not maldistribution is a significant problem and whether AHEC programs actually upgrade rural health care.

One of the major difficulties of AHEC programs—particularly externship programs—was identified as the necessity of gaining State Board approval of the programs in order to meet internship requirements. This appeared to vary among States as some Boards of Pharmacy would allow 1 and ½ hours of internship credit per hour of experience due to the structured manner of the program, while other Boards would not credit the programs at all.

Curriculum revision seemed to be a necessary step in providing an opportunity for the student to participate in any of the identified programs. The revisions usually were of major dimensions affecting the entire academic experience. It was felt that these programs were much more significant in providing practical experience than the more traditional dispensing courses or "mock" pharmacy experiences.

Fiscal support of programming was discussed and included the topics of "Long term support of Programs" as well as projected annual expenditures.

Dentistry

Dr. Alfred C. Waldrep
Coordinator for Dental Activities
South Carolina AHEC
Medical University of South Carolina

A number of topics of vital concern were discussed by participants of the Round table discussions for AHEC dental affairs. Several unique approaches to programs and problems were encountered and discussed together with future directions which the programs might take. This report is based on a topic outline of the Round table discussions.

Types of Programs

As would be expected, types of programs varied with different participants. These generally were either the undergraduate satellite clinic type of educational experience or preceptor programs. Continuing Education activities constituted a major part of the involvement for most participants. For some, this consisted of programs for the private practitioner only, while other programs involved dental assisting, hygienist, and technician programs. One program had embarked upon a graduate residency program in General Dentistry; however, this program had just begun and no experience factor was available.

Faculty and Personnel

Faculties for all programs, whether satellite clinics or preceptorship activities, consisted mostly of clinical appointments to the involved colleges or schools of dentistry. Ancillary personnel involved included dental assisting students, dental hygiene students, dental technician students, as well as full-time ancillary employees of the individual institutions. There did not appear to be any better type of approach; however, where students of all types were involved, a common learning experience ensued which appeared to be more attracted to the individual.

Funds and Budgets

Financial support for the various programs appeared to be adequate for the types of programs involved, although there was some concern and hope expressed for continued funding past the stated contract date.

Equipment

The types and availability of equipment varied greatly since there was generally no equipment funding under individual AHEC contracts. Satellite clinic equipment program is generally obsolete to various degrees. This limitation in the original guidelines necessitated the utilization of equipment previously used, in some instances, in public health projects, etc.

Dentistry roundtable discussion.

Undergraduate, Graduate and Auxiliary Programs

These activities varied greatly due to the individual nature of the various programs as previously discussed under Types of Programs. Some had postgraduate continuing education programs only, while some had programs involving hygienists only. Approximately half the participants, however, had devised programs in which all AHEC activities were involved: undergraduate education for assistants, hygienists, technicians, and dental students; graduate education for the private practitioner. One general residency program was being developed.

Current Status

All programs are functioning and most of them are at predicted capacity. Some programs are exploring expansion both of physical plants and program content. Without exception, all participants felt that the Area Health Education Center concept was working and fulfilling an important role in Health Science Education. It was felt that the multidisciplinary programs were of vital importance in exposing students to the total health concept. Expansion of this concept appears warranted.

Future Plans

It was felt that expansion of all program areas was desirable, particularly the health team approach, where feasible. All participants were anxious to see the continuation of the AHEC concept. It was felt that an annual meeting with the Asheville format could play a major role in coordinating our future activities and allowing each program to benefit from the experience of others.

Public Health

Dr. Charles Harper
Director, Division of Community Health Service
University of North Carolina School of Public Health

The group discussion began with a review of the involvement of public health in the AHEC programs represented by the discussants. Only in North Carolina and Texas, where there are well established schools of public health, was there any such involvement. There was an expression of interest among all discussants as to what relationship public health has to the other disciplines in North Carolina and Texas. This led to a specific focus on the role of public health in AHEC as it has developed thus far in the program's development.

An example was cited. In one North Carolina county, the AHEC staff have worked closely with the Director of Public Health and his staff in the following activities:

1. Recruitment of a pediatrician for the community.
2. Training of public health nurses, including one for role as supervisor.
3. Organizing the nursing service of the health department.
4. Joint hospital-health department efforts in setting up pediatric and coronary care units within the hospital.

It was pointed out that this collaboration was made possible by the presence of a health director who has a broad view of public health which focuses on the total health needs of citizens of his community. Where this kind of competence and leadership are not present, the role of public health would of necessity be more limited. This cited the need for AHEC to focus on developing public health administrative leadership throughout the AHEC areas.

The discussion moved to an examination of the professional role of public health as a discipline, versus the role of a public health department. The group agreed that the two are not necessarily synonymous.

Questions were raised about the role of the Public Health Department such as:

1. Should it be involved in the delivery of primary medical care?
2. Should it limit itself to the traditional preventive service with which it has been associated historically?

Some of the group felt that the Health Department should concern itself primarily with environmental and other preventive services rather than with the delivery of health care directly. Others felt the Health Department should take on health delivery functions where there are needs and no other resources to do the job.

A key role of public health in general was identified as assessment of health needs of the community, viz-a-viz health manpower and other components of a health system. Once the assessment is made, the role of public health is to link the components of the system in ways that contribute to better accessibility and quality of health care for citizens. There was considerable agreement on this role among the group. The point was made, however, that for public health to successfully carry out the function requires an acceptance on the part of other disciplines. This acceptance can come about best by educational and demonstration efforts designed to show interdependencies and interrelationships necessary to meet the total health needs of people. No group, other than public health, has either the legal or other concern for total health needs of the population.

The area of patient and family education was cited as a role that public health is able to take on because of its impact on health promotion and prevention. This task is not restricted to hospitals, extended care facilities, or nursing homes, or care in the home; but pervades all facets of health care. To carry out these functions, AHEC can provide a framework for educating public health nurses and other professionals.

The concept of "body politic" on community as patient was noted as the manner in which public health has been characterized. This would embrace all elements in a community which affected the health needs of the population. This includes health promotion, planning for needed resources, preventive treatment and other services.

Finally, the group addressed the multiplicity of organized efforts that have a role to play in the health system, including the new legislation (93-641) which sets up Health System Agencies. AHEC, and especially the public health component of it, is concerned with the functions and responsibilities that such agencies are given by law with respect to health resources planning and development; moreover, appropriate relationships must be established if orderly progress is to be made toward improving health manpower resources.

Medicine

Dr. Edward P. Donatelle
Chairman, Department of Family Medicine
University of North Dakota School of Medicine

Dr. Donatelle initiated the roundtable discussion with the following introductory remarks.

The use of community resources in the educating process, both in undergraduate and graduate area, and also for continuing education for the practicing physician, was developed in North Dakota with the University of North Dakota School of Medicine as the base of operation. The medical school at the University of North Dakota, Grand Forks, has had an excellent 2-year school developed since 1905. It was recently credentialled in 1973 for a 4-year degree-granting medical school. However, the University of North Dakota has no university hospital to serve as a base of operation for medical education in the clinical years. The AHEC concept in which the State was divided into four divisions, each encompassing a geographic area of one-fourth of the state, in which approximately one-fourth of the population lives. The central coordinator, Mr. Gary Dunn, remains at the university level, but each division has an AHEC Dean who is responsible for the development, coordination, administration and governance of the medical education activities for his area.

The factors to be considered in the utilization of the AHEC concept and community resources can be listed as:

1. Cost Factors. The base cost for building a hospital today exceeds $65 a square foot. In many of the suburban or community hospitals, the structure is already present and does not require new construction. A corollary to this advantage is that of equipment and related hospital services which are already present and ongoing, probably for several years, and in many instances, of excellent quality.

2. Faculty Duplication. Most communities with hospitals of the size that would lend themselves for medical education already have a faculty, in many instances representing all of the disciplines as well as allied health services such as medical social workers, educational psychologists, pastoral counseling, etc. A nonexistent university hospital, if constructed, would require the recruitment of a faculty not present or not adequate.

3. Patient Clientele for Teaching Purposes. Few, if any, indigent patients are available as teaching material in medical education today. Much patient medical care is provided by Medicare, Medicaid, Veterans Hospitals, Public Health Centers, Mental Health Centers. Therefore, University hospitals in urban areas are frequently struggling to keep their hospital capacity up in order to supply the needs for both undergraduate and graduate medical education. Because of the under-utilization of such hospitals, the cost for patient care becomes disproportionately high. This, in turn, discourages patients from entering these university medical centers and further, depletes the required teaching patient clientele.

Patient population is now beginning to recognize and must be further educated to accept the fact that everyone is potential material to be used for medical education at the time of illness. It has been my experience that suburban and rural patients accept this obligation well.

4. Teaching Facilities. In the area of primary health care delivery, strategically placed, teaching facilities facilitate and are instrumental in influencing medical students and graduates to return to these areas to practice their art.

AHEC concept can be and has been utilized to provide medical education for all members of the professional medical health care delivery team. This health professional community includes physicians, nurses, physician assistants, nurse practitioners, medex, undergraduate and graduate medical students, as well as clinical pharmacists.

However, this roundtable focused on the use of AHEC concepts in undergraduate and graduate training of physicians and continuing education of the practicing physician. In considering a protocol to be used as a guide for evaluating community resources in relation to the previously listed commitment, one must make some preliminary decisions.

First, one must decide at what level of education will the community facility be involved.

1. Basic science (first 2 years)
2. Clinical sciences (second 2 years)
3. Graduate (residency training)
4. Continued education for the practicing physician

A community may well support education at all levels. In the basic science years, this may take the form of physical diagnosis, interview techniques, introduction to patient care. In the clinical undergraduate area, it may take the form of supporting a preceptorship program. In the graduate area, there may be developed a graduate training program in the community in any or all of the specialty disciplines. It may very well be that an assessment, well designed to evaluate the resources available in the community, could very clearly define whether or not a community could support one or all of the aforementioned programs.

Continued education for the practicing physician usually can be developed in any community with either the resources available or a visiting faculty from without.

Other factors which may play a major role in the desirability of a community as a teaching center would be related to the feasibility of implementing a program from a logistic, economic, and practical basis.

The assessment process should follow a structured protocol designed to obtain the desired information needed to serve as a basis for policy-making decisions in regard to the use of community facilities for medical education.

1. Areas to be studied must be selected.
2. A data gathering sheet must be designed to include relevant items to be investigated.
   a. hospital beds, types of hospital admission, ancillary services available, etc.
   b. clinical facilities within the community involved. These will include physician facilities, medical health centers, rehabilitation centers, drug abuse centers, and other related medically oriented facilities.
   c. medical community; number and types of physicians, dentists, nurses; allied personnel; medical social workers; psychiatrists; and other related health care personnel.
   d. general community attitude and facility. The question must be asked whether a community population will support, with the proper attitude and housing facilities, a cadre of medical students, faculty and visiting faculty.
3. Evaluation of the assessment data concerning
   a. raw resources—are the resources available?
   b. value of resources—are the resources of such value that an implementation of the program appears to be justified?
   c. feasibility in using resources—cost factors involved. In many instances, the medical community would charge you more than cost effectiveness prove worthwhile. Housing facilities may be so great that the cost of using the community is prohibited. The logistics in moving to and from, in certain seasons, under certain climatic conditions, are important. The faculty attitude, whether or not a continuous sustained cooperative venture is in the offing.

Following an assessment of community resources and the decision as to what level of education will be conducted in the community, one must then develop the program involving both the undergraduate and graduate student. The problems in structuring such programs involve the core curriculum of the program as related to the level of education being conducted; the mechanism of student rotation through the program; objectives for the program and methods of assessment. It is well that a program that is to be standardized throughout the entire state emanate from the university medical school, as it has in North Dakota, in an umbrella fashion, allowing for easy coordination of curriculum objectives and methods of assessment in the divisional areas.

Dr. Donatelle indicated that in moving into the North Dakota School of Medicine as Chairman of the Department of Family Medicine, his first responsibility was that of determining not only the level of medical education with which the Department of Family Medicine would involve itself, but also the rapid development of graduate training programs in practice.

The issues in structuring such a program resolve themselves into five different elements.

1. The assessment of community resources.
    a. hospital and clinic facilities for inpatient educational programs,
    b. availability and attitude of community physicians for the teaching process,
    c. attitude and potential support of the citizens relative to medical education within their community
2. Site selection and development of family practice training centers.
3. Development of application for family practice residency training programs.
4. Faculty development.
5. Curriculum development and assessment.

The assessment of community resources follows the same protocol as previously discussed.

The development of a family practice training center is considerably more complicated. In many instances physicians of the community are threatened because they think that many of their patients will be drawn into the family practice training center and will be lost to them. In the process of neutralizing this concern and obtaining the cooperation of the practicing physicians, one must have several meetings with both the lay community as well as the physicians in the community, all under the supervision of the AHEC Dean of that area who is well versed with the personalities and the sentiments involved in the community. A site must be selected in a neutral position indicating the number of patient clientele which are required and where they will come from and how they will affect the community. The hospital facilities must be closely related to the family practice training center, which is the workshop for ambulatory experience in the graduate training program.

It should be recognized that currently the time lag from the submission of application for graduate training program to the Residency Review Committee and the final approval of the program may be as long as one full year. It should be noted that a process which involves consultant review; application submission; site review from the residency review team; submission of these finding to the Residency Review Committee; and finally, to the Liaison Committee for Residency Training of the American Medical Association consumes a considerable length of time.

The development of faculty can be eased considerably by the AHEC Dean of the area being actively involved.

The curriculum development becomes the responsibility of the department chairman of the respective discipline that is developing a graduate training program. In family medicine, the family practice training programs are developed at the university level with a standardized structure that varies, depending on community resources available.

General discussion revealed that in some instances there must be dual appointments because of the problem of inadequate numbers of faculty representing other disciplines that could be employed within the Department of Family Medicine. In many instances, the surgical faculty would be available for teaching in family medicine and in surgery as well as the internal medicine faculty would be available to teach in internal medicine as well as family medicine. The same would prevail for the other disciplines. If this, then, presented a problem of obtaining this individual as a permanent member of the family practice faculty, a dual appointment arrangement may be the method by which it can be solved, i.e. having an appointment in internal medicine as well as in family medicine.

What is important, however, is that there is a standardization of material that is presented to the resident in all the areas of the related program, regardless of whether the faculty member has a dual appointment or not.

Of second greatest importance is the obtaining of a commitment by the faculty member and making certain that he lives up to that commitment. It is recognized that dual appointments, from an administrative standpoint, make the organization a little more difficult, but it can be done. The University of Missouri has no clinical chairmen and appointments in the various disciplines are related to the hospitals and to the community physicians where the medical school program is being conducted.

A long discussion was held relative to the setting up of objectives and the evaluation of the program. General consensus was that objectives must be established; activities of the preceptor and the preceptee must be recorded and retrieved at various points in time by whatever system is employed. This data is then used to evaluate and assess what the perceptee has obtained or the resident has obtained from the teaching process and whether or not the clinical faculty is meeting the objectives.

In view of the fact that medical education deals with an unshrinkable body of cognitive knowledge that must be delivered, and also deals with the development of judgmental skills in the medical student, and in behavioral changes of attitudes toward a career goal, the process of education must relate to these basic principles. In each institution,

Mr. Michael Wiedner expresses his viewpoint in the roundtable discussion in medicine.

Area Health Education Centers, with their respective, responsible faculty, and chairmen of the various departments that deal with medical education, must be interrelated and have close liaison with the community physicians to use in the faculty. The problem of preceptors and community faculty being threatened by the preceptee must be always recognized. As the future of various programs continue and as the use of community faculty continues, more and more time should be spent in programs serving to bridge the gap between academia and the clinical physician. Such programs as Teaching the Medical Educator and orientation relative to student contact must be ongoing and continuous.

In the process of developing program for educating the medical educator, it is ill-advised to develop a program in education dealing with high academic ideals and present this material to the prospective faculty member at the first exposure. This, in many instances, would frighten and terrorize the prospective faculty member and may well lose a qualified educator to your program.

A basic set of objectives and goals for the educational experience should be outlined as stated by many individuals, with a brief orientation as to the relationship of the faculty member to either the undergraduate or graduate medical student should be conducted. This is currently being done at the University of Minnesota, the University of Utah, and now at the University of North Dakota as well as in the North Carolina-South Carolina-Missouri and other areas represented in the roundtable discussion. It is recognized that the physicians are not threatened when involved with the first and second year medical student in courses such as medical interview, physical diagnosis and introduction to patient care, but became threatened by the junior-senior preceptee and in the graduate area.

As more and more community faculty become involved with this process, and as more and more ongoing support and educational material is presented to the part-time faculty, the problems of relationship will become less and less.

A strong criticism was presented to the roundtable discussion that not much had been said as to the quality of scholarship, the quality of excellence and the quality of life relative to the medical student and graduate student. Further discussion clearly indicated that there is a body of cognitive knowledge that must be presented to all medical students. The second objective of developing judgmental skills and of changing behavior patterns toward attitudes leading to a career goal, which is the basis of all education, must be accomplished. It was emphasized that whereas in prior years medical educational institutions sought to select and graduate medical students; presently the emphasis is in developing an end product to meet the needs of certain areas and certain disciplines. Educational programs must therefore be developed to produce such an end product. After this product has been trained and educated, then a method of assessment as to whether or not we have accomplished these goals should be available.

In the development of objectives, curriculum and process for delivering this educational material, there must be included methods of determining behavior and dealing with behavioral problems within the medical students lives and his relationship to those who are serving as his mentors.

That there is no easy method available in coordinating all these activities was acknowledged by all.

The discussions concluded with acknowledgment that scholarship and excellence are the basis of all programs; that methods of assessment must be developed to meet the needs if each individual program; that the use of computer systems must be employed in both tabulating; storing and retrieving what we are doing in the educative process; and that meetings such as these are vital to the viability of the AHEC concept in meeting the educational needs of the professional medical health care teams and in developing greater resources for delivery of medical health care.

Evaluation

Ms. Bernadine M. Feldman
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The evaluation discussion group convened at 8:00 p.m. with participants from several of the national AHEC programs. In addition to AHEC project evaluation personnel, participants included persons from ABT Associates; Pagan Associates; Dr. David Kindig, Deputy Director, Bureau of Health Resources Development; and Robert Walkington, Director, Division of Evaluation Health Resources Administration.

Following brief individual introductions and descriptions of the participants' project evaluation activities, the discussion of issues related to evaluation evolved.

The issues discussed included the following topics:

1. Purpose of AHEC Project Evaluation.
2. Audience of Project Evaluation.
3. Orientation and Purpose of National Evaluation.
4. Relationship Between Project Evaluation and National Evaluation Program.
5. Discussion and Information Exchange of Project Evaluation Components.
6. Problems Related to Project Evaluation.

Mr. Walkington, of HRA, described for the group the purposes of the National Evaluation effort. The following purposes were included, among others:

1. Provide a description of AHEC program for HRA.
2. As a data base to inform Congress and other decision makers.
3. As a source of information to contribute to decisions concerning allocation of resources.
4. As a means of increasing knowledge and the State of the Art with reference to design and implementation of evaluation studies.

Dr. David Kindig, Deputy Director of BHRD, indicated additional needs related to the evaluation effort; namely, a need to know what components of the projects did work and at what cost; this information is necessary as input to congressional committees and future decisions related to the Health Manpower issue. Other issues which were briefly discussed included:

1. Need for a resolution that planning for a residual impact study of AHEC projects begin presently, for implementation 3-5 years hence.
2. The use of Management Information System format as a data base for evaluation.
3. Problems related to OMB Clearance of data collection instruments.
4. The need for project evaluation people to initiate and maintain a mechanism for information exchange and general communication.

As a first step, the following list of persons involved with project evaluation activities was prepared and distributed to each participant.

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It was readily apparent from the character of the discussion, as well as the limited time available at the conference, that many of the issues of concern to evaluators could be discussed in a cursory manner only. A more substantive exchange would require an extended period of time; for this reason the suggestion of a 2 or 3 day meeting AHEC evaluation personnel was entertained. Due to the lateness of the hour, the group decided to reconvene at 4:00 p.m. Saturday, April 26, 1975.

The Saturday meeting resulted in a decision to investigate the possibility of a meeting of evaluation personnel in cooperation with Mr. Robert Walkington of HRA. Tom Stewart, New Mexico AHEC; Alan Chesney, South Texas AHEC; and Karen Seashore Louis, Tufts-Maine AHEC, volunteered to work with Mr. Robert Walkington of HRA to investigate and develop plans for this meeting.

A final issue raised during this time related to the absence of representation of AHEC project evaluation personnel on the Advisory Committee for the National Evaluation Project. Mr. Walkington indicated that this situation would be remedied soon.

Roundtable discussion on evaluation.

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